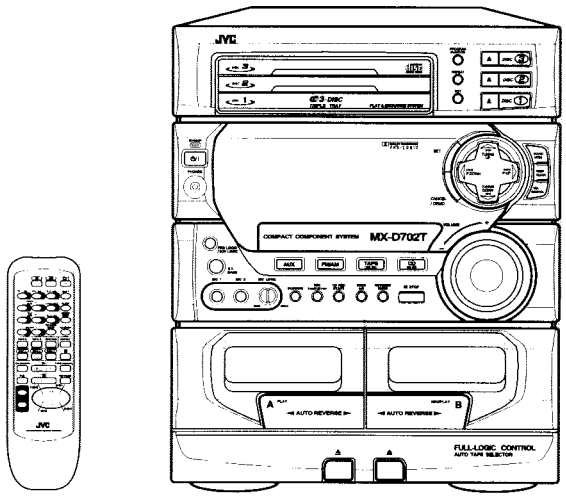
CA-D702T
CA-D752TR

JVC

SERVICE MANUAL

COMPACT COMPONENT SYSTEM

CA-D702T / SP-D702
CA-D752TR / SP-D752



Area Suffix	
CA-D702T	
UT	Taiwan
US	Singapore
UB	Hong Kong
UP	Korea
UX	Saudi arabia
U	Universal
A	Australia
CA-D752TR	
B	U.K
E	Continental Europe
EN	Northern Europe
EE	Eastern Europe

R·D·S EON

COMPACT disc DIGITAL AUDIO

Contents

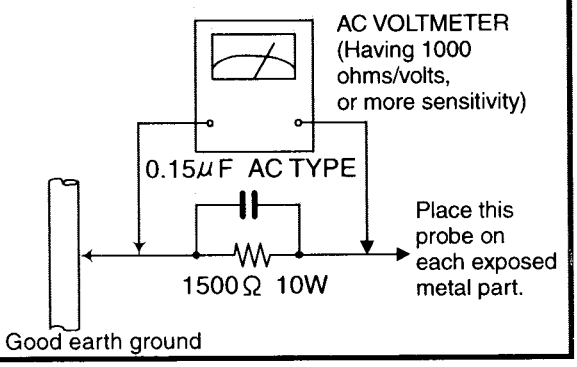
Safety Precaution ---------- 1-2
Instructions ---------- 1-5~28
Description of Major ICs ---------- 2-1
Internal Connection of FL Display ------ 2-15
Disassembly Procedures ---------- 2-16
Flow of Functional Operation
Unit TOC Read --------- 2-29
Maintenance of Laser Pickup ---------- 2-30
Replacement of Laser Pickup ---------- 2-30
Adjustment Procedures ---------- 2-31
Block Diagrams ---------- 2-35
Schematic Diagrams ---------- 2-37
Printed Circuit Board ---------- 2-49~54
Parts List ---------- 3-1~27

COPYRIGHT © 1998 VICTOR COMPANY OF JAPAN, LTD.

No.20700
Jun. 1998

Safety Precautions

1. This design of this product contains special hardware and many circuits and components specially for safety purposes. For continued protection, no changes should be made to the original design unless authorized in writing by the manufacturer. Replacement parts must be identical to those used in the original circuits. Services should be performed by qualified personnel only.
2. Alterations of the design or circuitry of the product should not be made. Any design alterations of the product should not be made. Any design alterations or additions will void the manufacturer's warranty and will further relieve the manufacture of responsibility for personal injury or property damage resulting therefrom.
3. Many electrical and mechanical parts in the products have special safety-related characteristics. These characteristics are often not evident from visual inspection nor can the protection afforded by them necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in the Parts List of Service Manual. Electrical components having such features are identified by shading on the schematics and by (⚠) on the Parts List in the Service Manual. The use of a substitute replacement which does not have the same safety characteristics as the recommended replacement parts shown in the Parts List of Service Manual may create shock, fire, or other hazards.
4. The leads in the products are routed and dressed with ties, clamps, tubings, barriers and the like to be separated from live parts, high temperature parts, moving parts and/or sharp edges for the prevention of electric shock and fire hazard. When service is required, the original lead routing and dress should be observed, and it should be confirmed that they have been returned to normal, after re-assembling.
5. Leakage currnet check (Electrical shock hazard testing)
   After re-assembling the product, always perform an isolation check on the exposed metal parts of the product (antenna terminals, knobs, metal cabinet, screw heads, headphone jack, control shafts, etc.) to be sure the product is safe to operate without danger of electrical shock.
   Do not use a line isolation transformer during this check.
   - Plug the AC line cord directly into the AC outlet. Using a "Leakage Current Tester", measure the leakage current from each exposed metal parts of the cabinet , particularly any exposed metal part having a return path to the chassis, to a known good earth ground. Any leakage current must not exceed 0.5mA AC (r.m.s.)
   - Alternate check method
     Plug the AC line cord directly into the AC outlet. Use an AC voltmeter having, 1,000 ohms per volt or more sensitivity in the following manner. Connect a 1,500Ω 10W resistor paralleled by a 0.15μF AC-type capacitor between an exposed metal part and a known good earth ground.
     Measure the AC voltage across the resistor with the AC voltmeter.
     Move the resistor connection to eachexposed metal part, particularly any exposed metal part having a return path to the chassis, and meausre the AC voltage across the resistor. Now, reverse the plug in the AC outlet and repeat each measurement. voltage measured Any must not exceed 0.75 V AC (r.m.s.). This corresponds to 0.5 mA AC (r.m.s.).



Warning

1. This equipment has been designed and manufactured to meet international safety standards.
2. It is the legal responsibility of the repairer to ensure that these safety standards are maintained.
3. Repairs must be made in accordance with the relevant safety standards.
4. It is essential that safety critical components are replaced by approved parts.
5. If mains voltage selector is provided, check setting for local voltage.

⚠ ***CAUTION*** **Burrs formed during molding may be left over on some parts of the chassis. Therefore, pay attention to such burrs in the case of preforming repair of this system.**

Safety Precautions (U.K only)

1. This design of this product contains special hardware and many circuits and components specially for safety purposes. For continued protection, no changes should be made to the original design unless authorized in writing by the manufacturer. Replacement parts must be identical to those used in the original circuits.
2. Any unauthorised design alterations or additions will void the manufacturer's guarantee ; furthermore the manufacturer cannot accept responsibility for personal injury or property damage resulting therefrom.
3. Essential safety critical components are identified by (⚠) on the Parts List and by shading on the schematics, and must never be replaced by parts other than those listed in the manual. Please note however that many electrical and mechanical parts in the product have special safety related characteristics. These characteristics are often not evident from visual inspection. Parts other than specified by the manufacturer may not have the same safety characteristics as the recommended replacement parts shown in the Parts List of the Service Manual and may create shock, fire, or other hazards.
4. The leads in the products are routed and dressed with ties, clamps, tubings, barriers and the like to be separated from live parts, high temperature parts, moving parts and/or sharp edges for the prevention of electric shock and fire hazard. When service is required, the original lead routing and dress should be observed, and it should be confirmed that they have been returned to normal, after re-assembling.

Warning

1. Service should be performed by qualified personnel only.
2. This equipment has been designed and manufactured to meet international safety standards.
3. It is the legal responsibility of the repairer to ensure that these safety standards are maintained.
4. Repairs must be made in accordance with the relevant safety standards.
5. It is essential that safety critical components are replaced by approved parts.
6. If mains voltage selector is provided, check setting for local voltage.

⚠ ***CAUTION*** **Burrs formed during molding may be left over on some parts of the chassis. Therefore, pay attention to such burrs in the case of preforming repair of this system.**

Important for Laser Products

1.CLASS 1 LASER PRODUCT

2.DANGER : Invisible laser radiation when open and inter lock failed or defeated. Avoid direct exposure to beam.

3.CAUTION : There are no serviceable parts inside the Laser Unit. Do not disassemble the Laser Unit. Replace the complete Laser Unit if it malfunctions.

4.CAUTION : The compact disc player uses invisible laserradiation and is equipped with safety switches whichprevent emission of radiation when the drawer is open and the safety interlocks have failed or are de feated. It is dangerous to defeat the safety switches.

5.CAUTION : If safety switches malfunction, the laser is able to function.

6.CAUTION : Use of controls, adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

VARNING : Osynlig laserstrålning är denna del är öppnad och spårren är urkopplad. Betrakta ej strålen.

VARO : Avattaessa ja suojalukitus ohitettaessa olet alttiina näkymättömälle lasersäteilylle.Älä katso säteeseen.

ADVARSEL : Usynlig laserstråling ved åbning , når sikkerhedsafbrydere er ude af funktion. Undgå udsættelse for stråling.

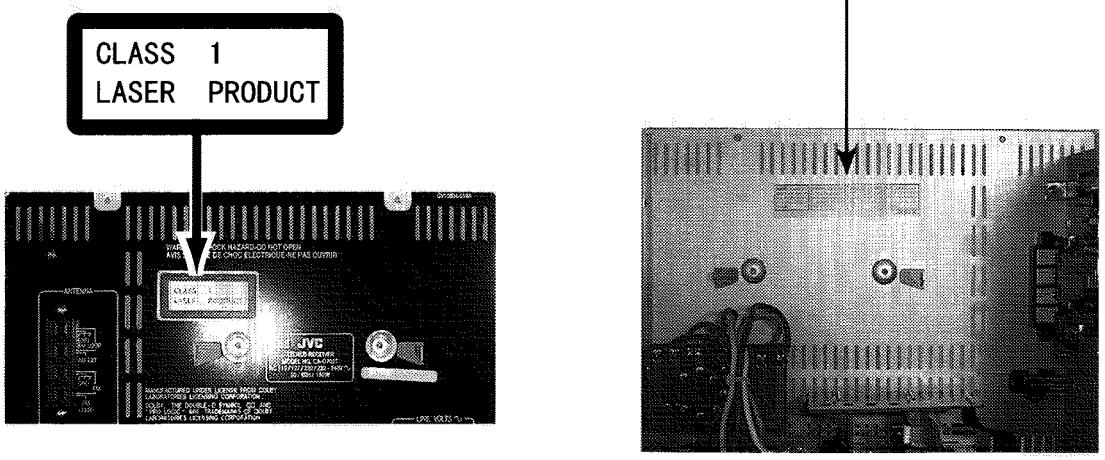
ADVARSEL : Usynlig laserstråling ved åpning,når sikkerhetsbryteren er avslott. unngå utsettelse for stråling.

REPRODUCTION AND POSITION OF LABELS

WARNING LABEL

(Except for the U.S.A.and Canada and UP)

DANGER : Invisibie laser radiation when open and interlock or defeated. AVOID DIRECT EXPOSURE TO BEAM (e)	VARO : Avattaessa ja suojalukitus ohitettaessa olet alttiina näkymättömälle lasersäteilylle.Älä katso säteeseen. (d)	VARNING : Osynlig laserstrålning är denna del är öppnad och spårren är urkopplad. Betrakta ej strålen. (s)	ADVARSEL :Usynlig laserstråling ved åbning , når sikkerhedsafbrydere er ude af funktion. Undgå udsættelse for stråling. (f)



JVC

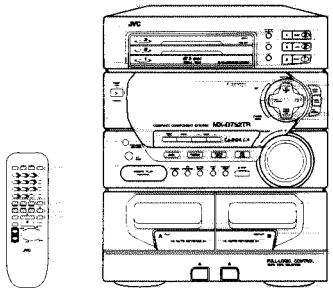
COMPACT COMPONENT SYSTEM

KOMPAKT-KOMPONENTEN-SYSTEM
SYSTEME DE COMPOSANTS COMPACT
KOMPACTO KOMPONENTEN-SYSTEEM
SISTEMAS DE COMPONENTES COMPACTOS
IMPIANTO A COMPONENTI COMPATTO

CA-D752TR

COMPACT disc DIGITAL AUDIO

R·D·S EON



INSTRUCTIONS

BEDIENUNGSANLEITUNG
MANUEL D'INSTRUCTIONS
GEBRUIKSAANWIJZING
MANUAL DE INSTRUCCIONES
ISTRUZIONI

For Customer Use:
Enter below the Model No. and Serial No. which are located either on the rear, bottom or side of the cabinet. Retain this information for future reference.

Model No. _____

Serial No. _____

GVT0004-006A
[E]

1-5

Instructions

Warnings, Cautions and Others / Warnung, Achtung und sonstige Hinweise /Mises en garde, précautions et indications diverses /Waarschuwingen, voorzorgen en andere mededelingen/Avisos, precauciones y otras notas / Avvertenze e precauzioni da osservare

IMPORTANT for the U.K.

DO NOT cut off the mains plug from this equipment. If the plug fitted is not suitable for the power points in your home or the cable is too short to reach a power point, then obtain an appropriate safety approved extension lead or consult your dealer.

BE SURE to replace the fuse only with an identical approved type, as originally fitted.

If nontheless the mains plug is cut off ensure to remove the fuse and dispose of the plug immediately, to avoid a possible shock hazard by inadvertent connection to the mains supply.

If this product is not supplied fitted with a mains plug then follow the instructions given below:

IMPORTANT:

DO NOT make any connection to the terminal which is marked with the letter E or by the safety earth symbol or coloured green or green-and-yellow.

The wires in the mains lead on this product are coloured in accordance with the following code:

Blue : Neutral.
Brown : Live

As these colours may not correspond with the coloured markings identifying the terminals in your plug proceed as follows:

The wire which is coloured blue must be connected to the terminal which is marked with the letter N or coloured black.

The wire which is coloured brown must be connected to the terminal which is marked with the letter L or coloured red.

IF IN DOUBT - CONSULT A COMPETENT ELECTRICIAN.

Per l'Italia:
"Si dichiara che il questo prodotto di marca JVC è conforme alle prescrizioni del Decreto Ministeriale n.548 del 28/08/95 pubblicato sulla Gazzetta Ufficiale della Repubblica Italiana n.301 del 28/12/95."

Caution — ⏻/I switch!
Disconnect the mains plug to shut the power off completely. The ⏻/I switch in any position does not disconnect the mains line. The power can be remote controlled.

Achtung — ⏻/I-Schalter!
Den Netzstecker aus der Steckdose ziehen, um die Stromversorgung vollkommen zu unterbrechen. Der Schalter ⏻/I unterbrichet in keiner Stellung die Stromversorgung vollkommen. Die Stromversorgung kann mit der Fernbedienung ein- und ausgeschaltet werden.

Attention — Commutateur ⏻/I!
Déconnecter la fiche de secteur pour couper complètement le courant. Le commutateur ⏻/I ne coupe jamais complètement la ligne de secteur, quelle que soit sa position. Le courant peut être télécommandé.

Voorzichtig — ⏻/I schakelaar!
Om de stroomtoevoer geheel uit te schakelen, trekt u de stekker uit het stopkontakt. Anders zal er altijd een geringe hoeveelheid stroom naar het apparaat lopen, ongeacht de stand van de ⏻/I schakelaar. U kunt het apparaat ook met de afstandsbediening aan- en uitschakelen.

Precaución — Interruptor ⏻/I!
Desconectar el cable de alimentación para desactivar la alimentación totalmente. Cualquier que sea la posición de ajuste del interruptor ⏻/I, la alimentación no es cortada completamente. La alimentación puede ser controlada remotamente.

Attenzione — L'interruttore ⏻/I!
Disinserire la spina del cavo di alimentazione dalla presa della rete elettrica per staccare completamente l'alimentazione. L'interruttore ⏻/I in nessuna posizione stacca la linea di alimentazione elettrica principale. È possibile il controllo remoto dell'alimentazione.

CAUTION
To reduce the risk of electrical shocks, fire, etc.:
1. Do not remove screws, covers or cabinet.
2. Do not expose this appliance to rain or moisture.

ACHTUNG
Zur Verhinderung von elektrischen Schlägen, Brandgefahr, usw:
1. Keine Schrauben lösen oder Abdeckungen entfernen und das Gehäuse nicht öffnen.
2. Dieses Gerät weder Regen noch Feuchtigkeit aussetzen.

ATTENTION
Afin d'éviter tout risque d'électrocution, d'incendie, etc.:
1. Ne pas enlever les vis ni les panneaux et ne pas ouvrir le coffret de l'appareil.
2. Ne pas exposer l'appareil à la pluie ni à l'humidité.

VOORZICHTIG
Ter vermindering van gevaar voor brand, elektrische schokken, enz.:
1. Verwijder geen schroeven, panelen of de behuizing.
2. Stel het toestel niet bloot aan regen of vocht.

PRECAUCIÓN
Para reducir riesgos de choques eléctricos, incendio, etc.:
1. No extraiga los tornillos, los cubiertas ni la caja.
2. No exponga este aparato a la lluvia o a la humedad.

ATTENZIONE
Per ridurre il rischio di shock elettrici, incendi, ecc..
1. Non togliete viti, coperchi o la scatola.
2. Non esponete l'apparecchio alla piogggia e all'umidità.

Caution: Proper Ventilation
To avoid risk of electric shock and fire, and to prevent damage, locate the apparatus as follows:
1 Front:
No obstructions and open spacing.
2 Sides/ Top/ Back:
No obstructions should be placed in the areas shown by the dimensions below.
3 Bottom:
Place on the level surface. Maintain an adequate air path for ventilation by placing on a stand with a height of 10 cm or more.

Achtung: Ausreichende Belüftung
Zur Vermeidung von elektrischen Schlägen, Feuer und sonstigen Schäden sollte das Gerät unter folgenden Bedingungen aufgestellt werden:
1 Vorderseite:
Hindernisfrei und gut zugänglich.
2 Seiten- und Rückwände:
Hindernisfrei in allen gegebenen Abständen (s. Abbildung).
3 Unterseite:
Die Stellfläche muß absolut eben sein. Sorgen Sie für ausreichende Luftzufuhr durch Aufstellung auf einem Stand mit mindestens 10 cm Höhe.

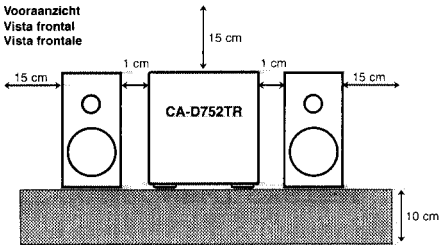
Attention: Aération correcte
Pour prévenir tout risque de décharge électrique ou d'incendie et éviter toute détérioration, installez l'appareil de la manière suivante:
1 Avant:
Bien dégagé de tout objet.
2 Côtés/dessus/dessous:
Assurez-vous que rien ne bloque les espaces indiqués sur le schéma ci-dessous.
3 Dessous:
Posez l'appareil sur une surface plane et horizontale. Veillez à ce que sa ventilation correcte puisse se faire en le plaçant sur un support d'au moins dix centimètres de hauteur.

Voorzichtig: Goede ventilatie vereist
Om brand, elektrische schokken en beschadiging te voorkomen, moet u het toestel als volgt opstellen:
1 Voorkant:
Geen belemmeringen en voldoende ruimte.
2 Zijkanten/boven-/onderkant
Geen belemmeringen plaatsen in de hieronder aangegeven zones.
3 Onderkant:
Op vlakke ondergrond plaatsen. Voldoende ventilatieruimte voorzien door het toestel op een onderstel met een hoogte van 10 cm of meer te plaatsen.

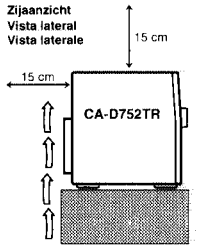
Precaución: ventilación correcta
Para evitar el riesgo de descargas eléctricas e incendio y prevenir posibles daños, instale el equipo en un lugar que cumpla los siguientes requisitos:
1 Parte frontal:
Sin obstrucciones, espacio abierto.
2 Lados/parte superior/parte posterior:
No debe haber ninguna obstrucción en las áreas mostradas por las dimensiones de la siguiente figura.
3 Parte inferior:
Situe el equipo sobre una superficie nivelada. Mantenga un espacio adecuado para permitir el paso del aire y una correcta ventilación, situando el equipo sobre un soporte de 10 o más cm de altura.

Attenzione: Per una corretta ventilazione
Per prevenire il rischio di scosse elettriche e di incendio ed evitare possibili danni, collocare le apparecchiature nel modo seguente:
1 Parte anteriore:
Nessun ostacolo e spazio libero.
2 Lati/Parte superiore/Retro:
Lasciare libere le zone indicate dalle dimensioni di seguito.
3 Base:
Collocare su una superficie piana. Consentire un'adeguata ventilazione dell'impianto appoggiandolo su un tavolinetto alto almeno 10 cm.

Front view
Vorderansicht
Face
Vooraanzicht
Vista frontal
Vista frontale



Side view
Seitenansicht
Côté
Zijaanzicht
Vista lateral
Vista laterale



IMPORTANT FOR LASER PRODUCTS/ WICHTIGER HINWEIS FÜR LASER-PRODUKTE / IMPORTANT POUR LES PRODUITS LASER / BELANGRIJKE INFORMATIE VOOR LASERPRODUKTEN / IMPORTANTE PARA LOS PRODUCTOS LÁSER / IMPORTANTE PER I PRODOTTI LASER

REPRODUCTION OF LABELS/ANBRINGUNGSORTE FÜR LASER-PRODUKTE/REPRODUCTION DES ETIQUETTES/VERKLARING VAN DE LABELS/REPRODUCCIÓN DE ETIQUETAS/RIPRODUZIONE DELLE ETICHETTE

1 CLASSIFICATION LABEL, PLACED ON REAR ENCLOSURE
2 WARNING LABEL, PLACED INSIDE THE UNIT

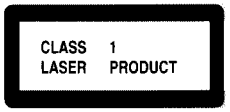
1 KLASSIFIKATIONSETIKETTE AN DER RÜCKSEITE
2 WARNETIKETTE IM GERÄTEINNEREN

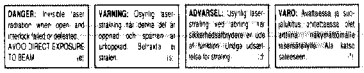
1 ETIQUETTE DE CLASSIFICATION, PLACÉE A L'ARRIÈRE DU COFFRET
2 ETIQUETTE D'AVERTISSEMENT PLACÉE À L'INTERIEUR DE L'APPAREIL

1 KLASSIFIKATIELABEL, OP DE ACHTERZIJDE VAN HET APPARAAT
2 WAARSCHUWINGSLABEL, IN HET APPARAAT

1 ETIQUETA DE CLASIFICACIÓN, PEGADA EN LA PARTE POSTERIOR DE LA CAJA
2 ETIQUETA DE ADVERTENCIA, PEGADA EN EL INTERIOR DE LA UNIDAD

1 ETICHETTA DI CLASSIFICAZIONE, SITUATA SUL RIVESTIMENTO POSTERIORE
2 ETICHETTA DI AVVERTENZA, SITUATA ALL'INTERNO DELL'APPARECCHIO





1. CLASS 1 LASER PRODUCT
2. **DANGER**: Invisible laser radiation when open and interlock failed or defeated. Avoid direct exposure to beam.
3. **CAUTION**: Do not open the top cover. There are no user serviceable parts inside the Unit; leave all servicing to qualified service personnel.

1. KLAS 1 LASERPRODUKT
2. **GEVAARLIJK**: Onzichtbare laserstraling wanneer open en de beveiliging faalt of uitgeschakeld is. Voorkom het direkt blootstaan aan de straal.
3. **VOORZICHTIG**: De bovenkap niet openen. Binnenin het toestel bevinden zich geen door de gebruiker te repareren onderdelen; laat onderhoud over aan bekwaam vakpersoneel.

1. LASER-PRODUKT DER KLASSE 1
2. **GEFAHR:** Unsichtbare Laserstrahlung bei Öffnung und fehlerhafter oder beschädigter Spre. Direkten Kontakt mit dem Strahl vermeiden!
3. **ACHTUNG:** Das Gehäuse nicht öffnen. Das Gerät enthält keinerlei Teile, die vom Benutzer gewartet werden können. Überlassen Sie Wartungsarbeiten bitte qualifizierten Kundendienst-Fachleuten.

1. PRODUCTO LASER CLASE 1
2. **PELIGRO**: En el interior hay radiación láser invisible. Evite el contacto directo con el haz.
3. **PRECAUCIÓN**: No abra la tapa superior. En el interior de la unidad no existen piezas reparables por el usuario; deje todo servicio técnico en manos de personal calificado.

1. PRODUIT LASER CLASSE 1
2. **ATTENTION:** Radiation laser invisible quand l'appareil est ouvert ou que le verrouillage est en panne ou désactivé. Eviter une exposition directe au rayon.
3. **ATTENTION:** Ne pas ouvrir le couvercle du dessus. Il n'y a aucune pièce utilisable à l'intérieur. Laisser à un personnel qualifié le soin de réparer votre appareil.

1. PRODOTTO LASER CLASSE 1
2. **PERICOLO:** Radiazione laser invisibile quando l'apparecchio è aperto ed il dispositivo di sicurezza è guasto o disattivato. Evitare l'esposizione diretta ai raggi.
3. **ATTENZIONE:** Non aprire il coperchio superiore. Non vi sono parti adoperabili dall'utente all'interno di questo apparecchio; lasciare tutti i controlli a personale qualificato.

Thank you for purchasing the JVC Compact Component System.
We hope it will be a valued addition to your home, giving you years of enjoyment.
Be sure to read this instruction manual carefully before operating your new stereo system.
Here you will find all the information you need to set up and use the system.
For questions that are not be answered in the manual, contact your dealer.

Features

Here are some of the things that make your System powerful and easy to use.

Easy operation

COMPU PLAY

■ The controls and operations have been designed to make them very easy to use, so you can spend your time listening to music.
- With the One Touch Operation feature of JVC's **COMPU PLAY** you can turn on the System and start the radio, the Cassette Deck, or the CD Player with a single touch.

Great sound

■ To get such great sound from such a compact package the System has:
- Built-in **Dolby Pro Logic** and **Dolby 3ch Logic** effects. Combined with the optional centre and rear speakers, this allows you to enjoy the dynamic, pulsating sound effects of a cinema.
- Programmed sound mode includes live surround effects **D. CLUB, HALL,** and **STADIUM**. It also includes S.E.A (Sound Effect Amplifier) effects **ROCK, POP,** and **CLASSIC**. You can also register up to three customized settings (MANUAL 1 to 3).

R·D·S EON

■ The System is compatible with RDS (Radio Data System) broadcasting.
- The EON data enables you to stand-by for desired information.
- The PTY Search function searches for programmes in the category you wish.

In addition, Radio Text can be displayed using data sent by station.

Triple Tray

■ CD changer function can operate 3 discs.
- Discs can be changed during play using the **TRIPLE TRAY**.
- Continuous, random or program play of 3 discs.

Three timers

■ The three timers, **Daily Timer, Recording Timer,** and **Sleep Timer** are extremely easy to set.

How This Manual Is Organized

In this manual we have incorporated some special features:
- Basic information that is the same for many different functions is grouped in one place, and not repeated in each procedure. For instance, in the section on playing a CD, we do not repeat the information about setting the volume and the sound conditions, which are discussed in the Common Operations section.
- Name of buttons and controls are written in all capital letters like this: SOUND MODE.

The manual has a table of contents to help you quickly look up what you want to know.
We've enjoyed making this manual for you, and hope you will use it to enjoy the sound and many features built into your System.

IMPORTANT PRECAUTIONS

1. Installation of the Unit
- Select a place which is level, dry and neither too hot nor too cold. (Between 5°C and 35°C or 41°F and 95°F.)
- Leave sufficient distance between the Unit and a TV.
- Do not use the Unit in a place subject to vibrations.

2. Power cord
- Do not handle the power cord with wet hands!
- Some power (12 watts) is always consumed as long as the power cord is connected to the wall outlet.
- When unplugging the Unit from the wall outlet, always pull the plug, not the power cord.

3. Malfunctions, etc.
- There are no user-serviceable parts inside. If anything goes wrong, unplug the power cord and consult your dealer.
- Do not insert any metallic object into the Unit.

English

English

Table of Contents

Features 1
How This Manual Is Organized 1
IMPORTANT PRECAUTIONS 1

Getting Started 3
Accessories 3
How to Put Batteries in the Remote Control 3
Using the Remote Control 3
Connecting the FM Antenna 4
Connecting the AM (MW/LW) Antenna 4
Connecting the Speakers 5
Connecting the Optional Speakers 5
Connecting Auxiliary Equipment 6
COMPU PLAY 7

Common Operations 8
DEMO Mode 8
Setting the Clock 9
Turning the Power On and Off 9
Turning the System On 9
Turning the System Off 9
Adjusting the Volume 10
Balance Adjustment 10
Reinforcing the Bass Sound 10
Sound Modes 11
Customizing a Sound Mode 11
When a Rear Speaker is Connected 12
Adjusting the Rear Speaker Level 12
Listening to Auxiliary Equipment 13

Dolby Surround 14
Preparing the Dolby Surround 15
Getting Ready To Use Dolby Pro Logic 16
Speaker Arrangements for Dolby Pro Logic 16
Setting-up Dolby Pro Logic 16
Getting Ready To Use Dolby 3 Channel Logic 17
Speaker Arrangements for Dolby 3 Channel Logic 17
Setting-up Dolby 3ch Logic 17
Using Dolby Surround 17

Using the Tuner 18
Tuning in a Station 18
Switching between Frequency Bands 18
Three Ways to Select a Station 19
Presetting Stations 19
Changing the FM Reception Mode 19
Receiving FM Stations with RDS 20
What Information RDS can Provide 20
Changing the Display 20
Searching for Programmes by PTY codes 21
EON Function 21
ALARM function 22

Using the CD Player 23
Loading CDs 24
Basics of Using the CD Player —
Continuous Play 24
Playing a CD 24
Selecting a Track 25
Locating a Track with the Remote Control Directly 25
Fast Forward / Reverse 25
Changing Discs While Playing 25
Programming the Playing Order of the Tracks 26
Checking the Program 27
Changing the Program 27
Random Play 27
Repeating a Selection or the Discs 28
Tray Lock Function 28
Locking the Trays 28
Unlocking the Trays 28

Using the Cassette Deck (Playing) 29
Regular Play 30
Fast Left and Fast Right 30
Music Scan 30
Finding the Beginning of the Current Selection 30
Finding the Beginning of the Next Selection 30
Reverse Mode 31

Using the Cassette Deck (Recording) 32
Things to Know before You Start Recording 32
Standard Recording 33
Recording AM Station to Tape 34
CD Direct Recording 34
Auto Edit Recording 34
Tape to Tape Recording (Dubbing) 35
How to Use the DUBBING Button 35

Using the Timer 36
Setting the Daily Timer 37
Turning the Daily Timer On and Off 38
Setting the Recording Timer 39
Turning the Recording Timer On and Off 40
Setting the Sleep Timer 40
Timer Priority 41

Care and Maintenance 42

Troubleshooting 43

Specifications 44

Getting Started

Accessories

Check that you have all of the following items, which are supplied with the System.

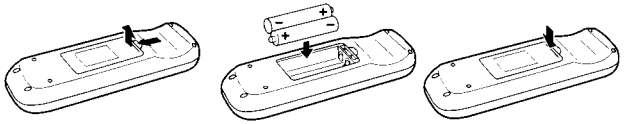
AM (MW/LW) Loop Antenna (1)
Remote Control (1)
Batteries (2)
FM Wire Antenna (1)

If any of these items is missing, contact your dealer immediately.

How to Put Batteries in the Remote Control

Match the polarity (+ and –) on the batteries with the + and – markings in the battery compartment.

R6P (SUM-3)/AA (15F)



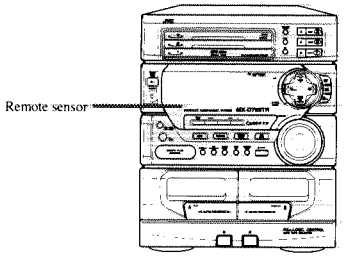
CAUTION: Handle batteries properly.

To avoid battery leakage or explosion:

- Remove batteries when the Remote Control will not be used for a long time.
- When you need to replace the batteries, replace both batteries at the same time with new ones.
- Do not use an old battery with a new one.
- Do not use different types of batteries together.

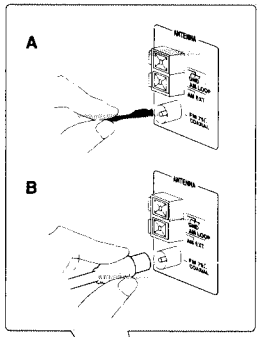
Using the Remote Control

The Remote Control makes it easy to use many of the functions of the System from a distance of up to 7m (23 feet) away.
You need to point the Remote Control at the remote sensor on the System's front panel.



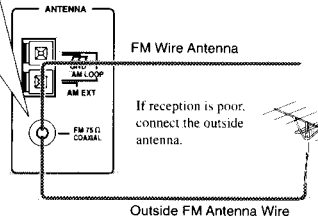
CAUTION: Make all connections before plugging the Unit into an AC power outlet.

Connecting the FM Antenna



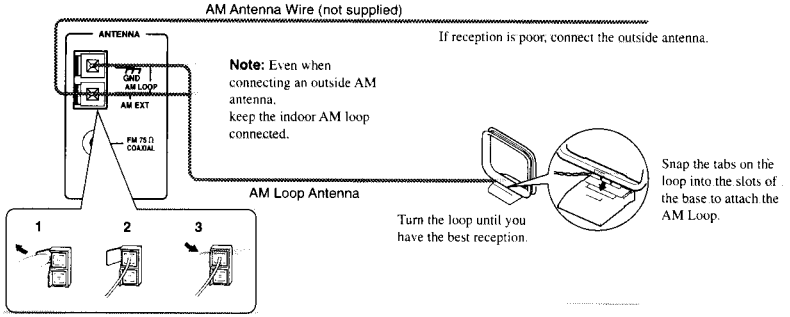
A. Using the Supplied Wire Antenna
The FM Wire Antenna provided can be connected to a FM 75-ohm COAXIAL as temporary measure.
Extend the supplied wire antenna horizontally.

B. Using the Standard Type Connector (Not Supplied)
A standard type connector (IEC or DIN 45325) should be connected to the FM 75-ohm COAXIAL terminal.


ANTENNA
AM LOOP
AM EXT
FM 75Ω COAXIAL
FM Wire Antenna
If reception is poor, connect the outside antenna.
Before attaching a 75-ohm coaxial lead (the kind with a round wire going to an outside antenna), disconnect the supplied FM Wire Antenna.
Outside FM Antenna Wire

CAUTION: To avoid noise, keep antennas away from metallic parts of the System, connecting cord and the AC power cord.

Connecting the AM (MW/LW) Antenna


AM Antenna Wire (not supplied)
If reception is poor, connect the outside antenna.
ANTENNA
AM LOOP
AM EXT
FM 75Ω COAXIAL
Note: Even when connecting an outside AM antenna, keep the indoor AM loop connected.
AM Loop Antenna
Turn the loop until you have the best reception.
Snap the tabs on the loop into the slots of the base to attach the AM Loop.
1
2
3

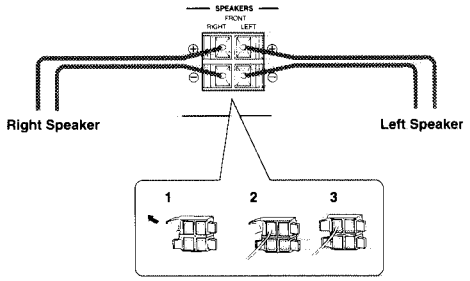
CAUTION: Make all connections before plugging the Unit into an AC power outlet.

Connecting the Speakers

■ Refer to instructions for speakers as well when you connect speakers.

For each speaker, connect one end of the speaker wires to the speaker terminals on the back of the System.

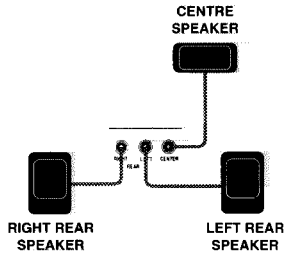
1. Open each of the terminals and insert the speaker wires firmly, then close the terminals.
2. Connect the red (+) and black (–) terminals of the right side speaker to the red (+) and black (–) terminals marked RIGHT on the System.
   Connect the red (+) and black (–) terminals of the left side speaker to the red (+) and black (–) terminals marked LEFT on the System.



IMPORTANT: Use speakers with the correct impedance only. The correct impedance is indicated on the back panel.
CAUTION: If a TV is installed near the speakers, the TV may display irregular colours. In this case, set the speakers away from the TV.

Connecting the Optional Speakers

Connect the optional centre speaker and rear speakers.

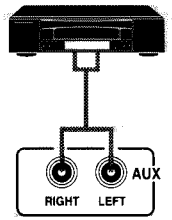


English

English

Connecting Auxiliary Equipment

VCR or other equipment
To listen to this source, press AUX.



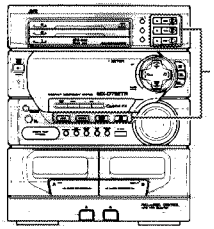
Now you can plug the AC power cord into the wall outlet, and your System is at your command!

COMPU PLAY

COMPU PLAY is JVC's feature that lets you control the most frequently used functions of the System with a single touch.
One Touch Operation starts playing a CD, turns on the radio, plays a tape, etc. with a single press of the play button for that function. What One Touch Operation does for you is to turn the power on, then start the function you have specified. If the Unit is not ready, such as no CD or tape in place, the Unit still powers on so you can insert a CD or tape.
How One Touch Operation works in each case is explained in the section dealing with that function.
The COMPU PLAY buttons are:

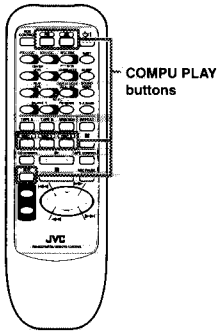
On the Unit

CD Player DISC 1 to DISC 3 buttons
CD Player Open/Close (▲) buttons
CD ►/II button
TAPE ◄◄ ►► button
FM/AM button
AUX button



On the Remote Control

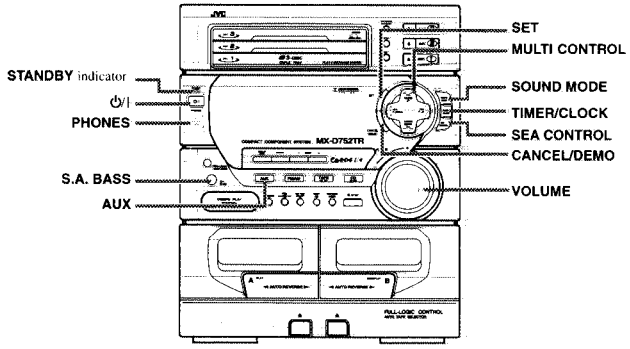
FM button
AM button
DISC 1 to DISC 3 buttons
AUX button

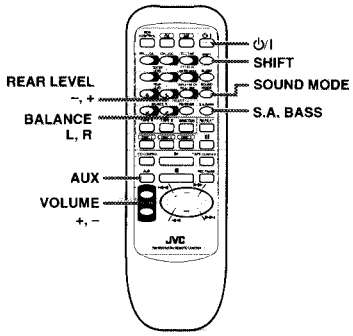


English

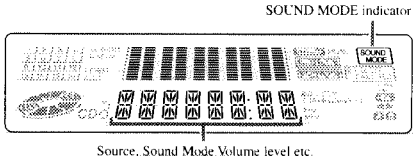
English

Common Operations



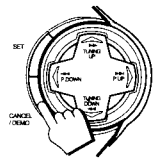


Display



When the System is being used, the display shows other items as well. However, we have only shown the items described in this section.

Demo Mode



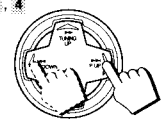
When the System is connected to an AC power outlet, a Demo automatically starts showing some of the system's features.
The Demo display cycles through the following items repeatedly.

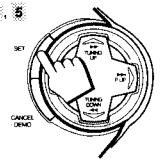
- Scrolling display of "DEMO MODE START".
- Demo of PRO LOGIC and 3CH LOGIC.
- Demo of Sound Modes.
- Demo of S.A. BASS.
- Demo of continuous play from DISC 1 to DISC 3.

To turn the Demo off, press any of the operation buttons. "DEMO OFF" appears on the display and the Demo automatically stops.

To turn the Demo on, press CANCEL/DEMO for more than 2 seconds.

Setting the Clock





Before operating the unit, set the correct time.
You can set the clock whether the Unit is on or off.

1. Press TIMER/CLOCK.
The hour digits begin flashing.

Flashing

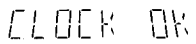
2. Press ⏮ P. DOWN or ⏭ P. UP on the MULTI CONTROL to set the hours.
Press ⏭ P. UP to increase the hour. Press ⏮ P. DOWN to decrease the hour. Holding down continuously changes the hour setting more rapidly.

3. Press SET.
The minute digits begin flashing.

Flashing

4. Press ⏮ P. DOWN or ⏭ P. UP on the MULTI CONTROL to set the minutes.
Press ⏭ P. UP to increase the minutes. Press ⏮ P. DOWN to decrease the minutes. Holding down continuously changes the minute setting more rapidly.

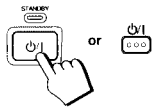
5. Press SET.
"CLOCK OK" appears on the display.
The clock stops flashing, and the clock timer starts from 0 second.



- If the clock is not set, "0:00" will flash instead of the clock indication.
- When the time has been set, TIMER/CLOCK can be used to operate the Daily Timer and Recording Timer.
- To adjust the time once the clock has been set, press TIMER/CLOCK 5 times and follow the procedure above.

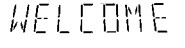
CAUTION: If there is a power failure, the clock loses its setting. The display shows "0:00", and the clock must be reset.

Turning the Power On and Off



Turning the System On

Press ⏻/I.
"WELCOME" appears on the display and the STANDBY indicator goes out.

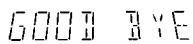


The System comes on ready to continue in the mode it was in when the power was last turned off.

- If the last thing you were doing was listening to a tape in Deck B, you are now ready to listen to a tape again in Deck B, or you can change to another source.
- If you were listening to the Tuner last, the Tuner comes on playing the station it was last set to.

Turning the System Off

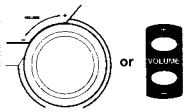
Press ⏻/I again.
"GOOD BYE" appears on the display for a while and the STANDBY indicator lights up. The clock time appears on the display.



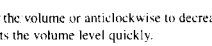
- Some power (12 watts) is always consumed even though the power is on standby.
- To switch off the Unit completely, unplug the AC power cord from the AC outlet. When you unplug the AC power cord, the clock will be reset to 0:00 immediately, and preset Tuner stations will be erased in a few days.

English

Adjusting the Volume



Turn VOLUME clockwise to increase the volume or anticlockwise to decrease it.
Turning VOLUME quickly also adjusts the volume level quickly.
When using the Remote Control, press VOLUME + to increase the volume or press VOLUME – to decrease it.
You can adjust the volume level between 0 and 50.



CAUTION: The Volume cannot be adjusted while the Unit is on STANDBY. DO NOT turn on the Unit and/or start playing any source without setting the VOLUME control to 0; otherwise, the sudden blast of sound can damage your hearing, speakers and/or headphones.

For private listening

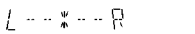
Connect a pair of headphones to the PHONES jack. No sound comes out of the speakers.
Be sure to turn down the volume before connecting or putting on headphones.

Balance Adjustment

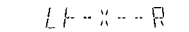
You can use the Remote Control to adjust the left and right balance of the speakers.

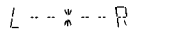
1. Press SHIFT.

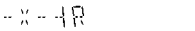
2. Press BALANCE L (10) or R (+10).
The display changes to show the balance adjustment.



Pressing L (10) moves the pointer to the left, pressing R (+10) moves the pointer to the right.


Display when set for no sound from the right speaker.

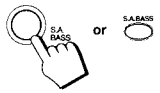

Display at the centre position.


Display when set for no sound from the left speaker.

- The balance is normally set to the centre position.

Note: If no adjustments are made for 2 seconds in balance adjustment mode, the display reverts to the previous display.

Reinforcing the Bass Sound



S.A. (Signal Adaptive) BASS adjusts low tones at low volume to enhance their effect. When the volume level is low, this enhances low tones that are normally difficult to hear and adjusts low tones to a fixed level to reduce low tone distortion.

Press S.A. BASS.
Pressing S.A. (Signal Adaptive) BASS changes the bass setting in the following order.
→ **SA-BASS1** → **SA-BASS2** → OFF → (back to the beginning)

The S.A. BASS indicator lights up, and "SA-BASS1" or "SA-BASS2" appears on the display for three seconds.

- SA-BASS2 enhances low tones more than SA-BASS1.

To cancel the effect, press S.A. BASS until "OFF" appears on the display. The button light goes out.

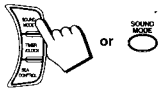
To recall the previous S.A. BASS mode, press S.A. BASS once.

- When listening to recording with low volume low tones, the difference between SA-BASS1 and SA-BASS2 is clear. When listening to recording with louder low tones, however, the difference between SA-BASS1 and SA-BASS2 may not be so clear.

Sound Modes

The System has some preset sound effects that give you control of the way your music sounds, so you can tailor it for your room and for the quality of the source. We can give you some idea of how each one affects the music, but the only way to really tell is to try them yourself.
You can also create up to three of your own customized S.E.A. (Sound Effect Amplifier) settings and store them in the Unit's memory (MANUAL 1, MANUAL 2, MANUAL 3).

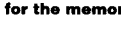
- The preset sound modes include modes using surround effects and modes using S.E.A. effects.
- Sound Mode effects cannot be recorded.



To get an effect, press SOUND MODE repeatedly until the Sound Mode you want appears on the display. The Sound Mode selected will appear on the display for three seconds. When a surround effect mode is selected, the frame around the SOUND MODE indicator will light up. When a S.E.A. effect mode is selected, the SOUND MODE indicator will light up.
Each time you press SOUND MODE, the Sound Mode changes as follows:

→ D. CLUB → HALL → STADIUM → ROCK → POP → CLASSIC → MANUAL 1 → MANUAL 2 → MANUAL 3 → OFF → (back to the beginning)

Surround effect modes



D. CLUB (Dance Club)	Increases resonance and bass.
HALL	Adds depth and brilliance to the sound, like in a concert hall.
STADIUM	Adds clarity and spreads the sound, like in an outdoor stadium.

S.E.A. effect modes

ROCK	Boosts low and high frequencies.
POP	Good for vocal music.
CLASSIC	Set for wide and dynamic sound stereo systems.

SOUND MODE

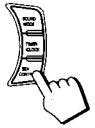
To cancel an effect, press SOUND MODE until "OFF" appears on the display. The SOUND MODE indicator goes out.

To recall the previous Sound Mode, press SOUND MODE once.

Customizing a Sound Mode

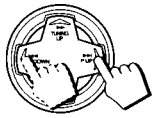
You can change an existing sound mode to suit your own preferences. These changed settings can be stored in the Unit's sound mode memory.

1. Select the Sound Mode you want to change.
If you select D. CLUB, HALL, or STADIUM, the surround effect remains unchanged, but you can adjust the S.E.A. effect.

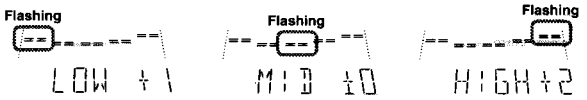


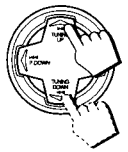
2. Press SEA CONTROL.
The low tone section of the tone equalizer flashes. Once "SEA CONT" appears, the low tone levels will appear.

Note: If no adjustments are made for 10 seconds after SEA CONTROL is pressed, Sound Mode will appear on the display then revert to the previous display.

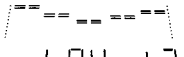


3. Use MULTI CONTROL to adjust to any Sound Mode desired.
Press ⏮ P. DOWN or ⏭ P. UP on the MULTI CONTROL to select the tone range you want to adjust. You can adjust "LOW", "MID" or "HIGH" tone.

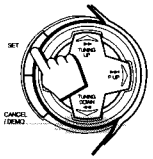




Press TUNING DOWN ◀◀ or ▶▶ TUNING UP on the MULTI CONTROL to adjust the level.
The level can be adjusted between –3 and +3 in 7 steps.

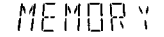


4. Press SET.
"MANUAL 1" appears on the display.



5. Press ⏮ P. DOWN or ⏭ P. UP on the MULTI CONTROL to select the MANUAL number for the memory.

6. Press SET again.
"MEMORY" appears for 2 seconds.
The setting that has been created is stored in the memory.

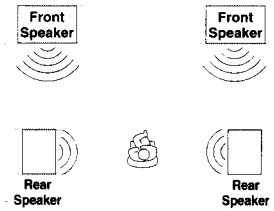


- The adjustment you have made will apply to the sound you hear.
- If you store new settings to a memory number that has already been used, the new settings replace the existing setting.

When a Rear Speaker is Connected

If the optional rear speaker is connected, you can use the rear speaker to enjoy Surround effects when a Surround effect (D. CLUB, HALL, STADIUM, or a MANUAL setting based on one of these) Sound Mode is selected.

- The rear speaker cannot be used when an S.E.A. effect (ROCK, POP, CLASSIC) is selected.



Adjusting the Rear Speaker Level

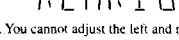
You can use the steps below to adjust the rear speaker level.

1. Select a Surround effect Sound Mode.

2. Start playback from the desired source.

3. Press SHIFT on the Remote Control.

4. Press REAR LEVEL + (8) or – (7) on the Remote Control to adjust the rear speaker level.
Each time you press the button, the level changes one step.

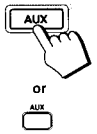


- You can set the level between –10 and +10 in 21 steps.
- The rear speaker level changes equally for both left and right. You cannot adjust the left and right balance for the rear speaker independently.
- You can adjust the rear speaker level for each of the Surround effect modes.

Listening to Auxiliary Equipment

By playing the sound from auxiliary equipment through the System, you can gain control over how the music or program sounds. Once the connected equipment is playing through the System, you can apply the sound effects.

■ First make sure that the auxiliary equipment is properly connected to the System. (See page 61.



1. Turn down the volume level to 0.

2. Press AUX.
"AUX" appears on the display. The AUX button on the Unit lights up.

COMPU PLAY
When AUX is pressed while the power is on standby, the power is automatically turned on.

3. Start playing the equipment.

4. Adjust the volume level to the desired listening level.

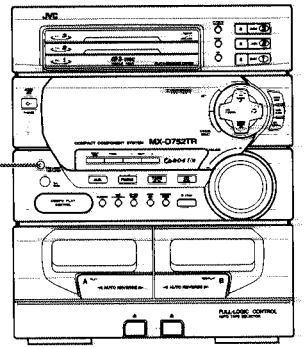
5. Select a Sound Mode, if you wish.

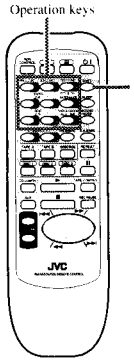
To cancel the setting
Change the source by starting any one of the System's built-in sound sources, such as the Tuner or CD Player.

English

English

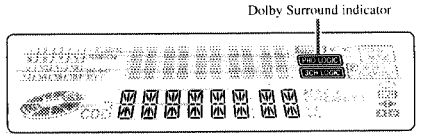
Dolby Surround





Accessing the Dolby Surround Functions
Press the operation keys with green labels on the Remote Control to use the Dolby Surround functions. To use the function marked in green, press SHIFT first, then press the desired operation key.

Display



When the System is being used, the display shows other items as well. However, we have only shown the items described in this section.

The Dolby Surround has been also developed to reproduce the important elements of the acoustic surround at home. To watch the sound tracks of video software bearing the mark DOLBY SURROUND which includes the same encoded surround information as found in Dolby Stereo film, the Unit can provide you with two Dolby Surround programs (Dolby Pro Logic and Dolby 3ch Logic).
Dolby Pro Logic: Select this mode when the optional rear speakers are connected.
Dolby 3ch Logic: Select this mode when no rear speakers are connected.

Manufactured under license from Dolby Laboratories Licensing Corporation. "Dolby", the double-D symbol, and "Pro Logic" are trademarks of Dolby Laboratories Licensing Corporation.

■ You need to connect the optional centre speaker and rear speakers to use the Dolby Surround functions.

Preparing the Dolby Surround

To use the Dolby Surround effects, you need to prepare the various settings.
These settings are set using the Remote Control.
The Dolby Surround settings are:

Centre Speaker Mode

Centre Speaker mode contains the following four settings.

- **PHANTOM:** Select this setting if you have not connected a centre speaker. The left and right front speakers project the sound to give the effect of a centre speaker. (PRO LOGIC only)
- **NORMAL:** Select this setting if you are using a small centre speaker. Since the centre speaker cannot boost the low tones effectively, this setting uses the front speakers to boost the low tones from the centre speaker.
- **WIDE:** Select this setting if you are using a centre speaker that is similar in power to the front speakers.
- **OFF:** Select this setting to turn off the output for the centre speaker.

Delay Time Mode

Delay Time mode contains the following four settings.

- **DELAY 1:** Select this setting if the rear speakers are further away from your listening position than the front speakers. (Delay time: 15 msec.)
- **DELAY 2:** Select this setting if the rear speakers and front speakers are about the same distance way from your listening position. (Delay time: 20 msec.)
- **DELAY 3:** Select this setting if the rear speakers are nearer to your listening position than the front speakers. (Delay time: 25 msec.)
- **DELAY 4:** Select this setting if the rear speakers are very close to your listening position compared to the front speakers. (Delay time: 30 msec.)

Adjusting the level of the Centre Speaker

Adjust the level of the centre speaker between +10 and –10. Set the level so that it is about the same as the level from the front speakers.

Adjusting the level of the Rear Speakers (For PRO LOGIC only)

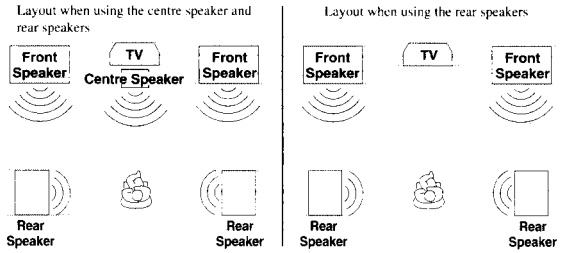
Adjust the level of the rear speakers between +10 and –10. Set the level so that it is about the same as the level from the front speakers.

■ You cannot adjust the levels of the left and right rear speakers independently.

English

Getting Ready To Use Dolby Pro Logic

Speaker Arrangements for Dolby Pro Logic



Setting-up Dolby Pro Logic

1. Press PRO LOGIC/3CH LOGIC to select PRO LOGIC.

Each time you press the button, Dolby Surround programmes change as follows:
→ **PRO LOGIC** → **3CH LOGIC** → **OFF** → (back to the beginning)

PRO LOGIC

When using the Remote Control, press SHIFT then press 1 PRO LOGIC.

- Perform the steps below using the buttons on the Remote Control.

2. Select the desired Centre Speaker mode.

Press SHIFT on the Remote Control then press 6 CENTER MODE.
Each time you press the button, Centre Speaker modes change as follows:
→ **NORMAL** → **WIDE** → **OFF** → **PHANTOM** → (back to the beginning)

3. Select the Delay time.

Press 9 DELAY TIME. Each time you press the button, Delay time changes as follows:
→ **DELAY 2** → **DELAY 3** → **DELAY 4** → **DELAY 1** → (back to the beginning)

4. Set the volume to the level you like.

5. Press 3 TEST TONE.

A test tone comes out of the speakers in the following order:
→ **LEFT** → **CENTER** → **RIGHT** → **REAR** → (back to the beginning)

- When a test tone comes out of the rear speakers, "SURROUND" appears on the display.
- When "PHANTOM" or "OFF" is selected for Centre Speaker mode, no test tone comes out of the center speaker.

6. Adjust the level for the centre speaker.

Press CENTER LEVEL 5 + or 4 –. Set the level so that it is about the same as the level from the front speakers.

CNTR±0

- You cannot adjust the level for the centre speaker if "PHANTOM" or "OFF" is selected for Centre Speaker mode.

7. Adjust the level for the rear speakers.

Press REAR LEVEL 8 + or 7 –. Set the level so that it is about the same as the level from the front speakers.

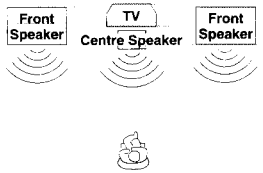
REAR±0

8. Press 3 TEST TONE again.

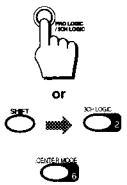
Test Tone mode is cancelled.
This completes the preparations required for using Dolby Pro Logic.

Getting Ready To Use Dolby 3 Channel Logic

Speaker Arrangements for Dolby 3 Channel Logic



Setting-up Dolby 3ch Logic



1. Press PRO LOGIC/3CH LOGIC to select 3CH LOGIC.
Each time you press the button, Dolby Surround programmes change as follows:
→ **PRO LOGIC** → **3CH LOGIC** → **OFF** → (back to the beginning)

When using the Remote Control, press SHIFT then press the 2 3CH LOGIC.
- Perform the steps below using the buttons on the Remote Control.

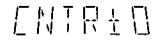
2. Select the desired Centre Speaker mode.
Press SHIFT on the Remote Control then press 6 CENTER MODE.
Each time you press the button, Centre Speaker modes change as follows:
→ **NORMAL** → **WIDE** → **OFF** → (back to the beginning)

3. Set the volume to the level you like.

4. Press 3 TEST TONE.
A test tone comes out of the speakers in the following order:
- When "OFF" is selected for Centre Speaker mode, no test tone comes out of the centre speaker.

→ **LEFT** → **CENTER** → **RIGHT** → (back to the beginning)

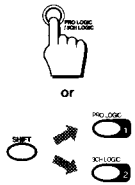
5. Adjust the level for the centre speaker.
Press CENTER LEVEL 5 + or 4 –. Set the level so that it is about the same as the level from the front speakers.



- You cannot adjust the level for the center speaker if "OFF" is selected for Center Speaker mode.

6. Press 3 TEST TONE again.
Test Tone mode is cancelled.
This completes the preparations required for using Dolby 3 Channel Logic.
- You cannot adjust the Delay Time or rear speaker levels in Dolby 3 Channel Logic mode.

Using Dolby Surround



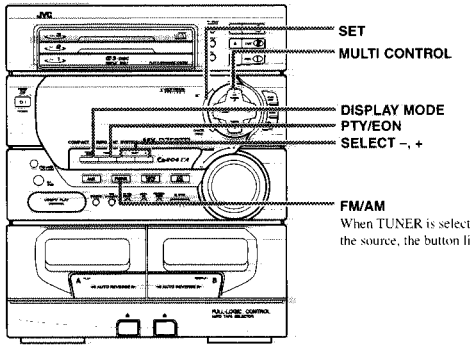
1. Press PRO LOGIC/3CH LOGIC and select the desired mode.
If you are using the Remote Control, press 1 PRO LOGIC or 2 3CH LOGIC after pressing SHIFT.
Make sure that the center speaker and rear speakers have been set up correctly, as described on pages 15 to 17.

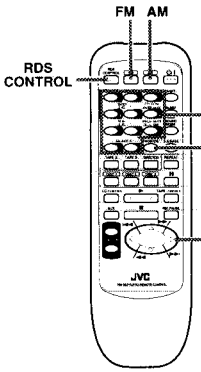
2. Playback as source with the DOLBY SURROUND mark.
Enjoy the great sound achieved through Dolby Surround.

To Cancel Dolby Surround Effects

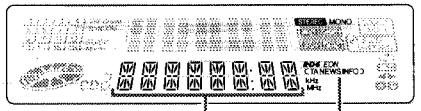
Press PRO LOGIC/3CH LOGIC until the Dolby Surround indicator goes out. If you are using the Remote Control, press the Dolby Surround buttons (1 PRO LOGIC or 2 3CH LOGIC) after pressing SHIFT.

Using the Tuner




FM AM
RDS CONTROL
Number keys and RDS operation keys
FM MODE
MULTI CONTROL
Pressing FM or AM makes the Remote Control ready for the Tuner operations. When the Unit is being operated with the Remote Control, press FM or AM first.

Display



When the System is being used, the display shows other items as well. However, we have only shown the items described in this section.

You can listen to both FM and AM (MW/LW) stations. Stations can be tuned in manually, automatically, or from preset memory storage.

■ Before listening to the radio:
- Check that both the FM and AM antennas are firmly connected. (See page 4.)

Tuning in a Station

Press FM/AM on the Unit (or FM or AM on the Remote Control) to turn on the radio.
The frequency of the previously selected channel appears on the display.

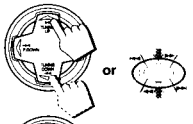
Switching between Frequency Bands

On the Unit
Press FM/AM.
Each time you press the button, the band alternates between FM and AM (MW/LW).

COMPU PLAY
When FM/AM is pressed while the power is on standby, the power is automatically turned on.

On the Remote Control
To tune in FM stations, press FM.
To tune in AM stations, press AM.

COMPU PLAY
When FM or AM is pressed while the power is on standby, the power is automatically turned on.



Three Ways to Select a Station

- Press TUNING DOWN ◄◄ or ►► TUNING UP on the MULTI CONTROL repeatedly to move from frequency to frequency until you find the one you want. (Manual Tuning).

OR

- Press and hold TUNING DOWN ◄◄ or ►► TUNING UP on the MULTI CONTROL for a few seconds, the frequency starts changing on the display. When a station is tuned in, the frequency stops changing. (Auto Tuning).

OR

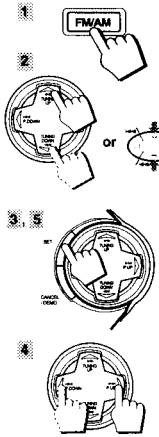
- Possible only after presetting stations.
  Press once and release ⏮ P. DOWN or ⏭ P. UP on the MULTI CONTROL to go to the next preset station.

You can also use the Remote Control to tune in preset channels:

1. Press FM or AM so that you can receive the last station tuned in.
2. Select the station by entering the preset number in the number keys of the Remote Control.
   - Example: for channel 5, press 5. For channel 15, press +10 then 5.
     For channel 20, press +10, then 10. For channel 30, press +10 twice then 10.

   - After you have selected the preset number and the number appears, the broadcast frequency of the selected channel appears on the display.

Presetting Stations



You can preset up to 30 FM stations and up to 15 AM (MW/LW) stations for the preset numbers.
Note: In some cases, test frequencies have been already memorized for the tuner since the factory examined the tuner preset function before shipment. This is not a malfunction. You can preset the stations you want into memory by following the presetting method.

1. Select a band by pressing FM/AM on the Unit.
When using the Remote Control, press FM or AM.

2. Press TUNING DOWN ◄◄ or ►► TUNING UP on the MULTI CONTROL to tune into a station.

3. Press SET.
"SET" flashes for 5 seconds.
While it is still flashing, carry out the following procedure.

4. Press ⏮ P. DOWN or ⏭ P. UP on the MULTI CONTROL on the Unit to set the preset number.

5. Press SET again.
"STORED" appears for 2 seconds. The preset station is stored in the memory.

6. Repeat steps 1 to 5 for each station you want to store in memory using different preset numbers.

CAUTION: If the Unit is unplugged or if a power failure occurs, the preset stations will be erased in a few days. If this happens, preset the station again.

Changing the FM Reception Mode

When an FM stereo broadcast is hard to receive or noisy, press FM MODE on the Remote Control so that the MONO indicator lights up on the display. Reception improves, but there is no stereo effect.

To restore the stereo effect, press FM MODE on the Remote Control so that the MONO indicator goes out. In this stereo mode, the STEREO indicator lights up and you can hear stereo effects, when a program is broadcast in stereo.

Receiving FM Stations with RDS

RDS (Radio Data System) allows the FM stations to send additional signals along with their regular programme signals. For example, the stations send their station names and information about what type of programme they broadcast, such as sports or music, etc.
When tuned to an FM station which provides the RDS service, the station frequency (and then the station name if sent) is displayed.
One convenient RDS service is "Enhanced Other Networks (EON)". This allows the Unit to automatically switch to a programme type of your choice when one starts in your broadcast area.

- Not all FM stations provide RDS service, nor do all RDS stations provide the same services. If in doubt, check with local radio stations for details on RDS services in your area.
- RDS may not work correctly if the station to which you are tuned is not transmitting properly or if the signal strength is weak.

What Information RDS can Provide

The System can use the following RDS service.

PS (Programme Service name)
Identifies each station by a name.

TA (Traffic Announcement Identification)
Identifies that a traffic announcement is being broadcast in your area.

RT (Radio Text)
Allows the RDS station to send text messages that appear on the display of the unit.

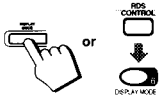
PTY (Programme Type)
Identifies the type of RDS programme. This allows you to locate a specific type of programme being broadcast.

The programme types are as follows:

NEWS	AFFAIRS	INFO	SPORT	EDUCATE
DRAMA	CULTURE	SCIENCE	VARIED	POP M
ROCK M	M.O.R. M	LIGHT M	CLASSICS	OTHER M
WEATHER	FINANCE	CHILDREN	SOCIAL A	RELIGION
PHONE IN	TRAVEL	LEISURE	JAZZ	COUNTRY
NATIONAL	OLDIES	FOLK M	DOCUMENT	TRAFFIC
ALARM				

EON (Enhanced Other Networks)
Provides information available on RDS stations other than the one which is being received.

Changing the Display



You can see RDS information on the display while listening to a FM station.
To view RDS information on the display, press DISPLAY MODE. (When using the Remote Control, press 6 DISPLAY MODE after pressing RDS CONTROL).
Each time you press the button, the display changes to show the following information:

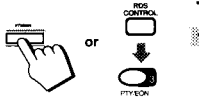
PS (Programme Service):
Station names will be displayed.
▼
PTY (Programme Type):
Types of broadcast programmes will be displayed.
▼
RT (Radio Text):
Text message sent by stations will be displayed.
▼
Station Frequency:
Station frequencies.

- While RDS information is being received from a station, "PS", "PTY", or "RT" may appear on the display.

Searching for Programmes by PTY codes

One of the advantages of the RDS service is that you can locate a particular kind of programme by specifying the PTY codes.

■ The PTY Search function is applicable to preset stations only.



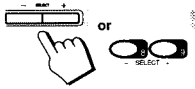
To search for a programme using the PTY codes, follow this procedure:

1. Press PTY/EON once.

- When using the Remote Control, press 3 PTY/EON after pressing RDS CONTROL.

"PTY" and "SELECT" appear alternately on the display.

Note: If no adjustments are made for 10 seconds in PTY Select mode, the display reverts to the previous display. Perform the next step while "PTY" and "SELECT" are being displayed.

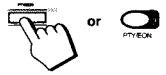


2. Press SELECT + or SELECT – to select a PTY.

- When using the Remote Control, press 8 SELECT – or 9 SELECT +.

Each time you press the button, PTY codes change as follows:

SELECT + →
↔ **NEWS ↔ AFFAIRS ↔ INFO ↔ SPORT ↔ EDUCATE ↔ DRAMA ↔ CULTURE ↔ SCIENCE ↔ VARIED ↔ POP M ↔ ROCK M ↔ M.O.R. M ↔ LIGHT M ↔ CLASSICS ↔ OTHER M ↔ WEATHER ↔ FINANCE ↔ CHILDREN ↔ SOCIAL A ↔ RELIGION ↔ PHONE IN ↔ TRAVEL ↔ LEISURE ↔ JAZZ ↔ COUNTRY ↔ NATIONAL ↔ OLDIES ↔ FOLK M ↔ DOCUMENT ↔ TRAFFIC ↔**
← SELECT –



3. Press PTY/EON again.

- When using the Remote Control, press 3 PTY/EON.

While the search function is running, the selected programme type and "SEARCH" alternate on the display.

Once the station which is broadcasting the selected PTY (Programme Type) is located, searching will stop. Then the station name (if PS code is being sent) will be indicated and the broadcast will commence. The indication will stay flashing for 10 seconds from the end of the searching function. If you press PTY/EON again during this period, search for the same PTY (Programme Type) will restart.

■ If a station broadcasting a selected PTY (Program Type) cannot be found, "NOTFOUND" appears on the display after the Unit has searched through the preset numbers. The Unit will return to the station to which it was tuned prior to the start of the PTY Search.

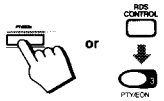
To cancel a PTY Search operation, press PTY/EON. (When using the Remote Control, press 3 PTY/EON.)

EON Function

With the EON (Enhanced Other Networks) code, the Unit can perform a stand-by reception which will enable you to obtain desired information which is available from other stations.

■ "EON" will be shown while receiving stations with an EON code.
■ EON Stand-by reception is applicable for preset stations only.
■ You can set EON Stand-by reception regardless of types of receiving bands.

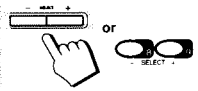
Setting EON Stand-by reception



1. Press PTY/EON twice.

- When using the Remote Control, press 3 PTY/EON after pressing RDS CONTROL.

The last EON information type selected is displayed.



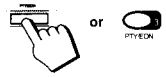
2. Select information you want by pressing SELECT + or SELECT –.

- When using the Remote Control, press the 9 SELECT + or 8 SELECT – button.

TA: Identifies that a traffic announcement is being broadcast in your area.
NEWS: News
INFO: Programmes on medical service, weather forecast, etc.

- Each time you press the button, EON codes change as follows:

SELECT + →
↔ **TA↔ NEWS ↔ INFO ↔ OFF ↔**
← SELECT –



3. Press PTY/EON.

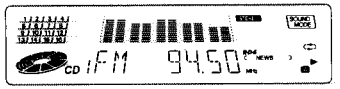
- When using the Remote Control, press 3 PTY/EON.

As soon as your selection is entered, the Unit will go into EON Stand-by reception mode.

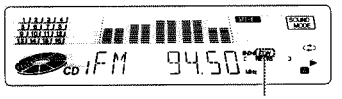
To cancel the EON function, select "OFF" by following the steps above.

When this Unit carries out EON Stand-by reception, the indication will change as follows:

1. Waiting for EON Stand-by reception.

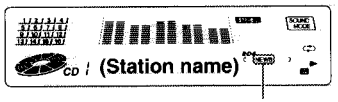


2. Preset stations are being searched for and while preparing to change the station, sound will be muted.



Light up

3. The station will be changed and the Station name being received will appear on the display.



Flashing

- To view the other RDS information on the display, press DISPLAY MODE. (When using the Remote Control, press 6 DISPLAY MODE after pressing RDS CONTROL).

Notes:

- EON broadcasts of some stations may not be compatible with this Unit. In the case of an incompatible EON broadcast, "EON" will not appear on the display.
- If the reception is unsatisfactory for a station among the preset stations, the station is searched for again. If after searching through the channels, the broadcasting station cannot be found, "NOTFOUND" appears on the display. The Unit will return to the station to which it was previously tuned.

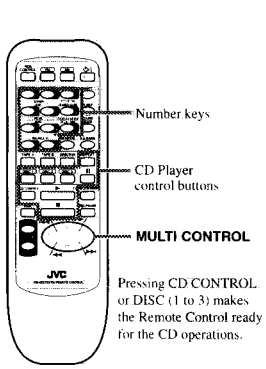
When broadcasting of the desired information has been completed, the Unit will automatically go back to the station which had previously been tuned to.

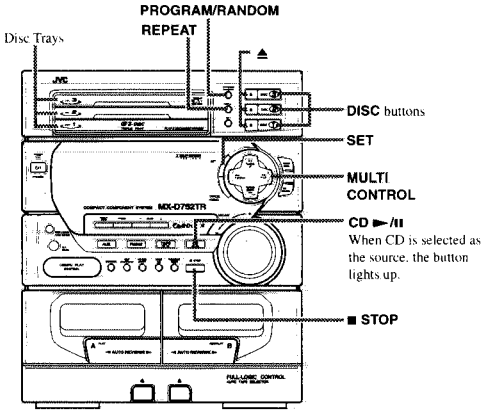
■ While receiving information on EON Standby reception, the station will not change to other stations even if the same information is available from them.
■ If the information you are waiting for is available from the current station, the indicator will flash.

ALARM function

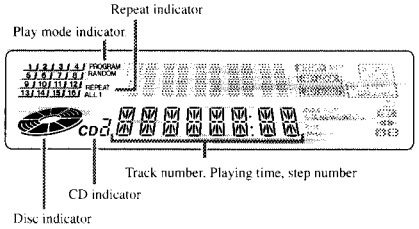
If an ALARM (Emergency) signal is received while receiving an EON code from a station, the Unit automatically switches to the station broadcasting the ALARM signal.

Using the CD Player


Number keys
CD Player control buttons
MULTI CONTROL
Pressing CD CONTROL or DISC (1 to 3) makes the Remote Control ready for the CD operations.



Display



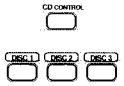
Disc indicator
Flashes while a CD is playing.
Is lit when a CD has stopped or is paused.

CD indicator
Indicates the number of the disc selected.

When the System is being used, the display shows other items as well. However, we have only shown the items described in this section.

The System's CD Player has an Automatic Changer with 3 disc trays. You can use Continuous, Random, Program or Repeat Play for the discs in DISC 1, DISC 2 and DISC 3. Repeat Play can repeat all the tracks on all the CD's or one track on one CD. There is also the Tray Lock function, which safely keeps discs in the trays.

Here are the basic things you need to know to play a CD and locate the different selections on it. Each selection is called a track, so when we are talking about locating a track, we are also talking about how you find a certain song or performance.

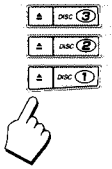


Entering CD Operation Mode with the Remote Control

Pressing CD CONTROL or DISC (1 to 3) makes the Remote Control ready for the CD operations.
Operate the CD player with ►, ■, MULTI CONTROL, and number keys.
The explanation provided in this section assumes that the Remote Control has been put into CD operation mode. When you use the Remote Control, press CD CONTROL first.

English

Loading CDs

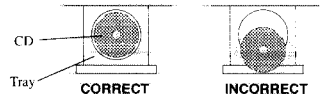


1. Press ▲ on the CD Player you want to insert the disc onto.
"OPEN" appears on the display and the disc tray slides out.

COMPU PLAY
When ▲ is pressed while the power is on standby, the power is automatically turned on.

2. Place a CD, with its label side up, onto the tray.

ATTENTION: *To avoid malfunctions when you play a CD, set the CD in the right place at the center of the tray.*



3. Press ▲ to close the tray.
"CLOSE" appears on the display.

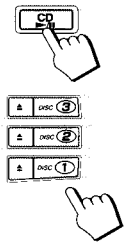
4. Repeat steps 1 to 3 to insert other discs onto the other trays.
- To continue putting discs onto other trays, even if a tray is open, by pressing the ▲ button of another disc tray, the open tray will close automatically, and the new disc tray will slide out.

■ When you place a CD onto the currently selected tray, whose disc number shown on the CD indicator, reading of the CD starts. The total number of tracks and total playing time appear after the reading is completed, then the playing time of the first track appears.

Reading now (flashing) | **Total number of tracks and playing time** | **Playing time of the 1st track**

■ To put an 8 cm CD onto a tray, insert it so that it is aligned with the groove in the tray's center.
■ If a tray is open when the System switches to the standby mode, the tray will close automatically.

Basics of Using the CD Player — Continuous Play



Playing a CD

Prepare the CDs.

On the Unit

Press CD ►/II.
The source is set to CD and play starts from the first track of the currently selected CD whose disc number shown on the CD indicator.

Press DISC (1 to 3) of the disc you want to play.
The source is set to CD and play starts from the first track of the selected CD.

COMPU PLAY
When CD ►/II or DISC (1 to 3) is pressed while the power is on standby, the power is automatically turned on.

■ When you press CD ►/II or DISC (1 to 3) while the disc tray is open, the tray will automatically close before beginning to play.
■ If there is no CD in the disc tray, "NO DISC" appears on the display.

Playing order of discs

■ When playback starts from DISC 1, the playing order is DISC 1 → DISC 2 → DISC 3.
When DISC 3 has finished, the CD Player stops.
■ When playback starts from DISC 2, the playing order is DISC 2 → DISC 3 → DISC 1.
When DISC 1 has finished, the CD Player stops.
■ When playback starts from DISC 3, the playing order is DISC 3 → DISC 1 → DISC 2.
When DISC 2 has finished, the CD Player stops.
- If any of the disc trays are empty, the CD Player skips that disc tray and continues through the remaining disc trays in the order shown above. When the last disc has finished playing, the Unit will stop automatically.

On the Remote Control

Press CD CONTROL then press ►.

The source is set to CD and play starts from the first track of the currently selected CD whose disc number shown on the CD indicator.

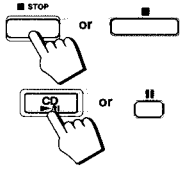
- If the above operation is carried out while the power is on standby, the power is automatically turned on.

Press DISC (1 to 3) of the disc you want to play.

The source is set to CD and play starts from the first track of the selected CD.

COMPU PLAY

When DISC (1 to 3) on the Remote Control is pressed while the power is on standby, the power is automatically turned on.



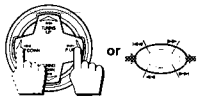
To stop playing the disc, press ■ STOP (or ■ on the Remote Control). The display will show the total number of tracks and total playing time of the disc that was playing followed by the playing time of the first track.

To stop play and remove the disc, press ≜ for the disc being played.

To pause, press CD ►/II (or II on the Remote Control). The playing time will flash.

To cancel pause, press CD ►/II (or ► on the Remote Control). Play continues from the point where it was paused.

Selecting a Track



Press I◄◄ P. DOWN or ►►I P. UP on the MULTI CONTROL to select the track.

The selected track starts playing.

■ Each time you press I◄◄ P. DOWN or ►►I P. UP, the track changes by one.
Press and hold I◄◄ P. DOWN or ►►I P. UP to continuously change tracks.

Locating a Track with the Remote Control Directly

Using the number keys on the Remote Control allows you to go directly to the beginning of any track.

1. Press the DISC (1 to 3) for the disc tray containing the track you want to listen to.

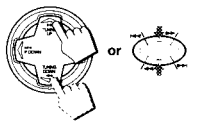
- Example: for the third disc, press DISC 3.

2. Enter the number of the track you want to listen to with the number keys.

The selected track starts playing.

- Example: for track 5, press 5. For track 15, press +10 then 5. For track 20, press +10, then 10. For track 32, press +10 three times, then 2.

Fast Forward / Reverse



Use TUNING DOWN ◄◄ or ►► TUNING UP on the MULTI CONTROL.

For Fast Forward, press and hold down ►► TUNING UP. For Reverse, press and hold down TUNING DOWN ◄◄. Release the button when the part you wish to listen to is reached.

Changing Discs While Playing

You can replace a CD in a tray not being used, while another CD is playing.

1. Press ≜ of the tray not being used.

The tray opens.

2. Replace the disc in the tray.

3. Press ≜ to close the tray.

English

Programming the Playing Order of the Tracks

You can change the order in which the discs and tracks play, and select only the discs and tracks you want from among those loaded in the CD Player.

■ You can programme up to 32 steps in any desired order from among the discs in the CD player.
■ You can only programme the CD Player when it is stopped.

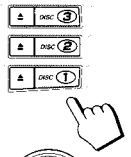
On the Unit

1. Press PROGRAM/RANDOM.

"PROGRAM" appears on the display and the PROGRAM indicator lights up.
If you have already created a programme, the last step of the previous programme will appear on the display.

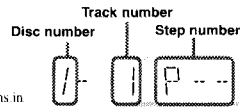
PROGRAM

Each time you press the button, play mode changes as follows:
→ **PROGRAM** → **RANDOM** → No Play mode indicator (Continuous Play) → (back to the beginning)

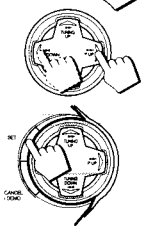


2. Select a disc with DISC (1 to 3).

The display changes to the Programme Entry display and the disc number and track number flash for a few seconds.

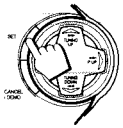


■ While the indications are flashing, perform the operations in steps 3 to 4. When the flashing indications change to "PROGRAM", repeat the operations in steps 2 to 4.



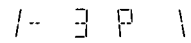
3. Press I◄◄ P. DOWN or ►►I P. UP on the MULTI CONTROL to select a track for programming.

The disc number and track number starts flashing on the display.



4. Press SET.

The indications on the display stop flashing and remains lit.
The step number appears on the display.



5. Repeat steps 2 to 4 to select the other tracks for the programme.

To select another track from the same disc, repeat the procedure from step 3.

6. Press CD ►/II.

The Unit plays the tracks in the order you have programmed them.

On the Remote Control

1. Press PROGRAM/RANDOM on the Unit.

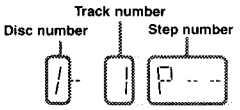
"PROGRAM" appears on the display and the PROGRAM indicator lights up.
If you have already created a programme, the last step of the previous programme will appear on the display unless you have erased the programme.

PROGRAM

Each time you press the button, play mode changes as follows:
→ **PROGRAM** → **RANDOM** → No Play mode indicator (Continuous Play) → (back to the beginning)

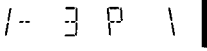
2. Select a disc with DISC (1 to 3).

The display changes to the Programme Entry display and the disc number and track number flash for a few seconds.



■ While the indications are flashing, perform the operation in step 3. When the flashing indications change to "PROGRAM", repeat the operations in steps 2 to 3.

3. Press the number keys (1 to 10 and +10) to select the tracks.
The indications on the display stop flashing and remains lit.
The selected track numbers light up and the step number appears on the display.
- Example: For track 5, press 5.
  For track 15, press +10 then 5.
  For track 20, press +10 then 10.
  For track 32, press +10 three times, then 2.



4. Repeat steps 2 to 3 to select the other tracks for the programme.

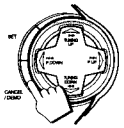
5. Press ►.
The Unit plays the tracks in the order you have programmed them.

- If you try to programme a 33rd track, "FULL" will appear on the display to let you know that the programme is full.
- If you try to programme a disc tray that is empty, or a track number that does not exist on a disc (for example, selecting track 14 on a disc that only has 12 tracks), the selected disc or track are skipped when the programme is played.
- You can skip to a particular programme step by pressing the MULTI CONTROL (I◄◄ P. DOWN or ►►I P. UP) or I◄◄ or ►►I on the Remote Control during programme play.
- To play the programmed tracks repeatedly, press REPEAT. For details, refer to "Repeating a Track or the Discs" on page 28.

To stop playing, press ■ STOP (or ■ on the Remote Control) once.
To delete all the tracks in a programme, press ■ STOP (or ■ on the Remote Control) while the CD Player is stopped. The programme is deleted and "PROGRAM" appears on the display.
To cancel programme play, press ■ STOP (or ■ on the Remote Control) while "PROGRAM" is shown on the display.

Checking the Programme

While the CD Player is stopped, use I◄◄ or ►►I on the Remote Control to check the contents of the programme.
Each time you press ►►I, the programme contents are shown on the display in the programmed order.
Pressing I◄◄ displays the previous step in the programme.



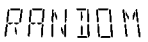
Changing the Programme

Modify the contents of a programme while the CD Player is stopped.
Press CANCEL/DEMO on the Unit. the last step in the programme is deleted.
Each time you press the button, the last step listed in the programme is deleted from the programme.
To add a step to the programme, follow the procedure above (on either the Unit or the Remote Control).
The new steps are added to the end of the programme.

Random Play

The tracks of all loaded CDs will play at random.

1. Press PROGRAM/RANDOM while the CD Player is stopped to change to the Random Mode display.



Each time you press the button, play mode changes as follows:
→ **PROGRAM** → **RANDOM** → No Play mode indicator (Continuous Play) → (back to the beginning)

2. Press CD ►/II.
The tracks of all the CDs are played in random order.
When all of the tracks have been played, the CD Player stops.

Note: Random Play cannot be activated with the DISC buttons and the number keys.

- You can skip to the next track by pressing ►►I P. UP on the MULTI CONTROL (or ►►I on the Remote Control) during Random Play. Each time you press the button, the next track is jumped to. (You cannot skip to the previous tracks, nor to the beginning of the current track during Random Play.)
- To continue with a different random track selection after the last track is played, press REPEAT to select REPEAT ALL before or during Random Play.

To cancel Random Play, press ■ STOP (or ■ on the Remote Control) twice. When the RANDOM indicator goes out, Continuous Play mode is resumed.

English

Repeating a Track or the Discs

You can have all the discs, the program or the individual track currently playing repeat as many times as you like.

Press REPEAT on the Unit.
Each time you press the button, the Repeat Modes change as follows.
→ **REPEAT ALL** → **REPEAT 1** → No indicator → (back to the beginning)

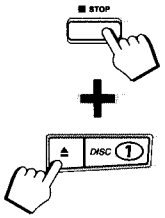
REPEAT ALL: Repeats all the tracks on the CDs, or all the tracks in the program.
REPEAT 1: Repeats one track on one CD.

To exit Repeat Mode, press REPEAT until the Repeat Mode indicator on the display goes out.

Tray Lock Function

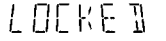
In order to safely keep the discs in the CD Player, the three trays can be electronically locked in a single operation.
When the Tray Lock function is on, the trays cannot be opened even if the ▲ button is pressed.
This function can only be accessed by using the buttons on the Unit itself.

Locking the Trays



1. Put the System's power into STANDBY mode.

2. While pressing ■ STOP, press ▲ for DISC 1 on the Unit.
"LOCKED" appears on the display to let you know that the trays have been locked.



When the CD Player trays are locked, pressing ▲ displays the message "LOCKED" on the display and the trays do not open. Also, ▲ cannot be used to automatically turn on the power.

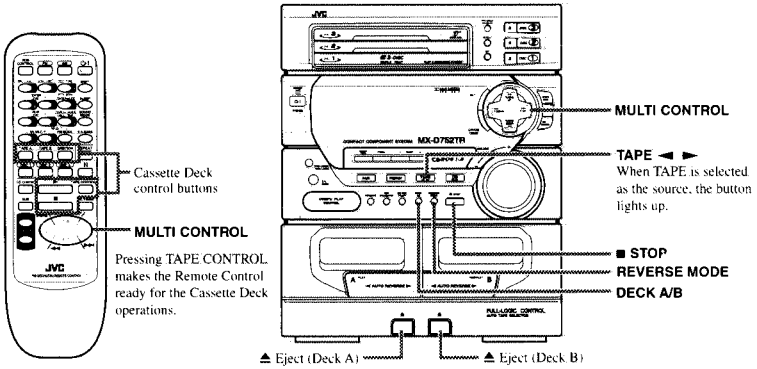
Unlocking the Trays

1. Put the System's power into STANDBY mode.

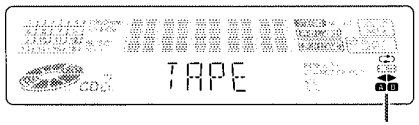
2. While pressing ■ STOP, press ▲ for DISC 1 on the Unit.
When the unlock operation is done, "UNLOCKED" appears on the display to show that the lock has been taken off.

The trays can now be opened by pressing ▲.
▲ can also be used to automatically turn on the power.

Using the Cassette Deck (Playing)


Cassette Deck control buttons
MULTI CONTROL
Pressing TAPE CONTROL makes the Remote Control ready for the Cassette Deck operations.
MULTI CONTROL
TAPE ◄ ►
When TAPE is selected as the source, the button lights up.
■ STOP
REVERSE MODE
DECK A/B
▲ Eject (Deck A)
▲ Eject (Deck B)

Display



When the System is being used, the display shows other items as well. However, we have only shown the items described in this section.

Tape Direction Indicator on the Display

The Tape Direction indicator tells you which direction the selected tape deck will use for playback.
During playback, the direction indicator flashes slowly.
During fast left or fast right, the indicator flashes quickly.
During Music Scan mode, the indicator flashes slowly and quickly alternately.

: Reverse Mode indicator
: Tape Direction indicator
A B : DECK A, B indicator

The Cassette Deck allows you to play, record and dub audio tapes.
■ With Automatic Tape Detection, you can listen to Type I or II tapes without changing any settings.

> The use of tapes longer than 120 minutes is not recommended, since characteristic deterioration may occur and these tapes easily jam in the pinch-rollers and the capstans.

Entering the TAPE Operation Mode with the Remote Control

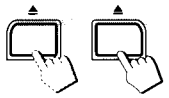
TAPE CONTROL

Pressing TAPE CONTROL makes the Remote Control ready for the Cassette Deck operations.
Operate the Cassette Deck with ►, ■ and MULTI CONTROL.
The explanation provided in "Using the Cassette Deck" section assumes that the Remote Control has been put into Cassette Deck operation mode. When you use the Remote Control, press TAPE CONTROL first.

English

English

Regular Play



When the power is already on, you can use this basic procedure:

1. Press down ▲ for the deck you want to use.

2. When the cassette holder opens, put a cassette in, with the exposed part of the tape down, toward the base of the Unit.
- If the cassette holder does not open, turn the power off, then back on and press down ▲ again.

3. Close the holder gently.
When both Deck A and Deck B contain a tape, the last deck to have a tape inserted is selected.
To change the selected deck, press DECK A/B. When using the Remote Control, press TAPE A or TAPE B.

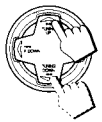
4. Press TAPE ◄ ► on the Unit.

COMPU PLAY
When the TAPE ◄ ► is pressed while the power is on standby, the power is automatically turned on.

When using the Remote Control, first press TAPE CONTROL followed by ►.
If the power is on standby, the power will automatically be turned on.
When "TAPE" appears on the display, the tape play starts toward the direction currently selected.

To stop playing, press ■ STOP on the Unit (or ■ on the Remote Control).
To remove the tape, stop the tape, and press down ▲.
To change deck while playing a tape, press TAPE ◄ ► after pressing DECK A/B on the Unit or press ► after pressing TAPE A or TAPE B on the Remote Control.
To change the direction of a tape while it is playing, press TAPE ◄ ► on the Unit or DIRECTION on the Remote Control.

Fast Left and Fast Right



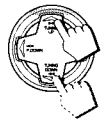
■ While the tape is stopped, press TUNING DOWN ◄◄ on the MULTI CONTROL (or ◄◄ on the Remote Control) and the tape will wind rapidly to the left side of the cassette without playing.
■ While the tape is stopped, press ►► TUNING UP on the MULTI CONTROL (or ►► on the Remote Control) and the tape will wind rapidly to the right side of the cassette without playing.

Note: Deck A and Deck B cannot be used for playback at the same time.

Music Scan

To find the beginning of a music track during play, use the Music Scan function. Music Scan searches for blank portions that usually separate selections, then plays the next selection.

Finding the Beginning of the Current Selection



Press TUNING DOWN ◄◄ or ►► TUNING UP on the MULTI CONTROL (or ◄◄ or ►► on the Remote Control) during play.
■ Make sure that you press TUNING DOWN ◄◄ or ►► TUNING UP on the MULTI CONTROL (or ◄◄ or ►► on the Remote Control) in the opposite direction to that in which the tape is playing. Searching stops at the beginning of the current selection, and the current selection starts automatically.

or

Finding the Beginning of the Next Selection

Press TUNING DOWN ◄◄ or ►► TUNING UP on the MULTI CONTROL (or ◄◄ or ►► on the Remote Control) during play.
■ Make sure that you press TUNING DOWN ◄◄ or ►► TUNING UP on the MULTI CONTROL (or ◄◄ or ►► on the Remote Control) in the same direction as that in which the tape is playing. Searching stops at the beginning of the next selection, and the next selection starts automatically.

Music Scan works by detecting a 4-second long blank at the beginning of each selection, so it will not work well if your tape has • • •

- No blank at the beginning of a selection.
- Noise (often caused by much use or poor quality dubbing) which fills the blank with noise.
- Long, very soft passages or pauses in a selection. The scan will detect these as 4-second long blanks. If this happens, just scan again until you reach the selection you want.

Reverse Mode

■ Use **Reverse Mode** to make the tape automatically reverse at the end of a side and start playing the other side.
Each time you press REVERSE MODE, the Reverse Mode turns on and off alternately.

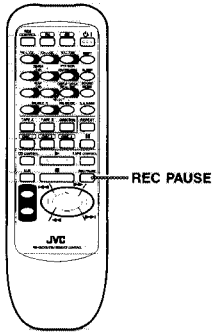
Reverse Mode ON

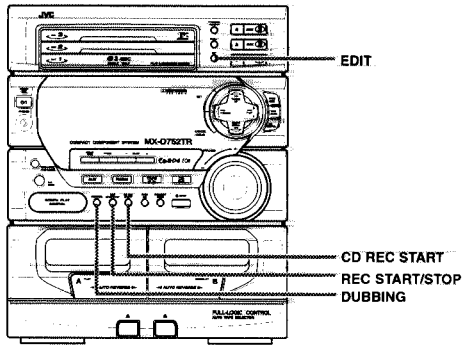
Reverse Mode OFF

■ **Continuous Play:** With the Reverse Mode indicator on, when tape playback in the reverse (◄) direction finishes, the Unit always checks to see if a tape is in the other deck. If there is, it automatically starts playing. This Continuous Play function works regardless of which deck starts first.

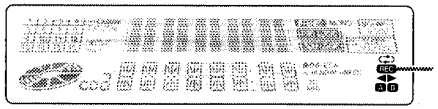
English

Using the Cassette Deck (Recording)





Display



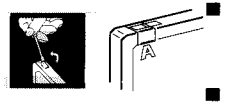
When the System is being used, the display shows other items as well.
However, we have only shown the items described in this section.

Things to Know before You Start Recording

■ **It may be unlawful to record or play back copyrighted material without the consent of the copyright owner.**

■ When you want to record onto both sides of a tape, you can set Reverse mode on to do so. However, recording automatically stops after recording in the ◄ direction in Reverse mode. Therefore, make sure that the tape direction is ► when recording with Reverse mode on.

■ The recording level, which is the volume at which the new tape is being made, is automatically set correctly, so it is not affected by volume control. Thus, during recording you can adjust the sound you are actually listening to without affecting the recording level.



■ Two small tabs on the back of the cassette tape, one for side A and one for side B, can be removed to prevent accidental erasure or re-recording. To record on a cassette with the tabs removed, you must cover the holes with adhesive tape first.
However, when a Type II tape is used, only cover part of the hole as shown, since the other part of the hole is used to detect the tape type.

■ When recording, you can hear Sound Mode effects through the speakers or headphones. However, the sound is recorded without Sound Mode effects.

■ Type I and Type II tapes can be used for recording.

Note: At the start and end of cassette tapes, there is leader tape which cannot be recorded onto. Depending on the recording source, the first part of the recording may be missing because of the leader. When recording CDs or radio broadcasts, to get the beginning of the recording on the tape, first wind on the leader before beginning recording.

CAUTION: If recordings you have made have excessive noise or static, the Unit may be too close to a TV which was on during recording. Either turn off the TV or increase the distance between the TV and the System.

English

Standard Recording

This is the basic method for recording any source. The System also has special ways for recording CD to tape, and tape to tape, which save your time and effort, as well as give you some special effects. However, when you need to add a selection to a tape you have made, or are combining selections from several sources on one tape, use the method described below; just substitute the source you want into this procedure, such as a CD or the Tuner. You can also record from an auxiliary source with this procedure.

Using the Unit

1. Insert a blank or erasable tape into Deck B.

2. Press REVERSE MODE if you want to record on both sides of the tape.
Reverse Mode comes on.
- When using Reverse Mode, insert the tape so that it will be recorded in the forward (►) direction.

3. Check the recording direction for the tape.
Check that the Tape Direction indicator is the same as that for the tape in the tape deck. If the directions are different, press ■ STOP after pressing TAPE ◄◄ ►► to set the tape direction.
- When using the Reverse Mode to record both sides of a tape, check that the Tape Direction indicator is in the forward (►) direction. If the direction indicator is not in the forward (►) direction, press TAPE ◄◄ ►► then press ■ STOP.

4. Prepare the source, for example, by tuning in a radio station, loading CDs, or turning on connected equipment.

5. Press REC START/STOP.
The REC indicator lights up and the System begins recording.

Using the Remote Control

1. Insert a blank or erasable tape into Deck B.

2. Press REVERSE MODE on the Unit if you want to record on both sides of the tape.
Reverse Mode comes on.
- When using Reverse Mode, insert the tape so that it will be recorded in the forward (►) direction.

3. Prepare the source, for example, by tuning in a radio station, loading CDs, or turning on connected equipment.

4. Press REC PAUSE.
The REC indicator starts flashing.

5. Press TAPE CONTROL then press ►.
Recording starts.
The REC indicator stops flashing and remains lit.

Notes for using Reverse Mode for recording

When recording with Reverse Mode on, the System automatically stops when it reaches the end of the reverse (◄) direction. To record on both sides of a tape, make sure that the recording direction for the tape inserted into Deck B is forward (►), and that the Tape Direction indicator is also forward (►), before you start recording.

To pause at any time during the recording process

Press REC PAUSE on the Remote Control. Then press ► on the Remote Control or REC START/STOP on the Unit to restart recording.

To stop at any time during the recording process

Press REC START/STOP on the Unit again, or press ■ on the Remote Control.

English

Recording AM Station to Tape

When recording an AM broadcast, beats may be produced which are not heard when listening to the broadcast. In this case, press PROGRAM/RANDOM on the CD Player to eliminate the beats.

1. Set to AM station and start recording.

2. Press PROGRAM/RANDOM repeatedly until the beats are eliminated.
Each time you press the button, the indication on the display changes as follows:
→ CUT 2 → CUT 3 → CUT 4 →CUT 1 → (back to the beginning)

CD Direct Recording

Everything on the CD goes onto the tape in the order it is on the CD, or according to the order you have set in a program.

1. Press CD ►/II, then ■ STOP.

2. Prepare CDs. (See page 24.)
Check that the CD Player is not playing a CD.

3. Insert a blank or erasable cassette in Deck B.
- When you want to record on both sides of a tape, press REVERSE MODE to turn on Reverse Mode. Check that the recording direction for the tape and the Tape Direction indicator are correct. (See page 33 "Notes for using Reverse Mode for recording".)

4. Press CD REC START.
"CD REC" appears on the display, the REC indicator lights up, and the System begins recording.
If the tape reaches its end while recording a song, the last song will be re-recorded at the beginning of the other side.
When the recording is finished, "CD REC FINISHED" scrolls by on the display. The CD Player and Cassette Deck stop.

To stop at any time during the recording process, press ■ STOP.

Note: When making Sleep Timer settings while doing CD Direct recording, set the time so that there is enough leeway to finish the recording before the power turns off. If the time is set to about the length of the CD, the power may turn off before recording finishes.

For CD Direct Recording using more than one disc, use a blank tape. If you use a prerecorded tape, prerecorded material may not be erased between newly-recorded tracks.

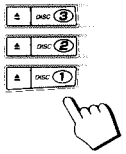
Auto Edit Recording

Using Auto Edit, you can record the CD tracks to fit the tape, so a selection is not cut off. Auto Edit is one of the best ways to copy all of a CD onto a tape. Auto Edit programs the CD tracks in numerical order. To prevent the end of the last track on the front side from being cut off, the last track on the front side is selected to fit on the remaining tape length.

1. Press CD ►/II, then ■ STOP.

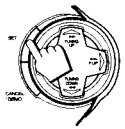
2. Prepare CDs. (See page 24.)
Check that the CD Player is not playing a CD.

3. Press EDIT on the Unit.
"DISC -" appears on the display.

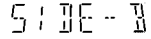


4. Press DISC (1 to 3) for the disc you want to record.
After "TAPE C - -", the optimum tape length for the disc appears on the display.

- You can select a different length of tape, depending on the actual size of the tape you are using, from eleven possibilities programmed into the Unit. 40, 46, 50, 54, 60, 64, 70, 74, 80, 84, 90. Select the tape length that corresponds to the length of tape you are using, or the nearest length to it, by adjusting ⏮ P. DOWN or ⏭ P. UP on the MULTI CONTROL.
  - If you select a tape length shorter than the total playing time of the CD, the last tracks on both sides of the tape will be faded out as the tape ends.



5. Press SET.
The tracks to be recorded on side B appear on the display.



- Each time you press the button, the tracks to be recorded on side A and side B appear on the display alternately.

6. Insert a blank or erasable cassette in Deck B.
When you want to record on both sides of a tape, press REVERSE MODE to turn Reverse mode on.

7. Press CD REC START.
The Unit plays the CD and starts recording. If the tape has not been rewound, the Unit rewinds the tape before starting to record the CD.

To stop at any time while recording, press ■ STOP or REC START/STOP on the Unit. If ■ STOP is pressed, the Cassette Deck will create a four-second blank space after the CD Player stops. If REC START/STOP is pressed, the CD Player and Cassette Deck will stop simultaneously. When ■ is pressed on the Remote Control, the stop time of the CD Player and Cassette Deck vary according to their mode (CD operation mode or Cassette Deck operation mode). If the Remote Control is in CD operation mode, the Cassette Deck will stop four second after the CD Player stops. If the Remote Control is in Cassette Deck operation mode, the CD Player and Cassette Deck will stop simultaneously.

To cancel Auto Edit, press PROGRAM/RANDOM while the CD Player is stopped or press ≜ for the disc number being recorded.

Note: When making Sleep timer settings while doing Auto Edit recording, set the time so that there is enough leeway to finish the recording before the power goes out. If the time is set to about the length of the CD, the power may go out before recording finishes.

Tape to Tape Recording (Dubbing)

Recording from one tape to another is called dubbing.
- ■ When dubbing tapes, make sure that the playback direction of Deck A and Deck B are the same.
- ■ When you record both sides of a tape, press REVERSE MODE to turn on the Reverse Mode.
- ■ It is preferable that the type of tape (Type I or Type II) you record from be the same as the type you record onto.

How to Use DUBBING

1. Press TAPE ◄ ►, then ■ STOP.

2. Insert the source cassette you want to copy from into Deck A for playback.
Insert the cassette so that it will be played in the forward (►) direction.

3. Insert the blank or erasable cassette you want to copy onto into Deck B for recording.
Insert the cassette so that it will be recorded in the forward (►) direction.

4. Press DUBBING.
Deck A and Deck B start simultaneously.

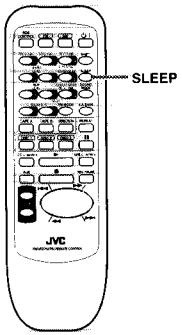
To stop dubbing, press ■ STOP.

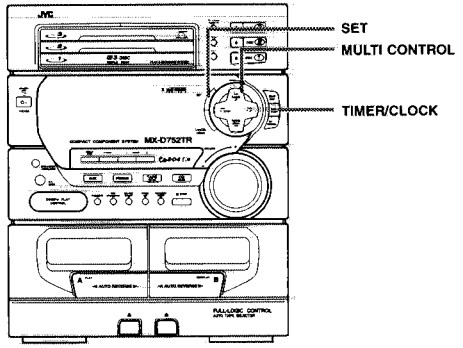
- ■ When dubbing, you can hear Sound Mode effects through the speakers or headphones. However, the sound is dubbed without Sound Mode effects.

English

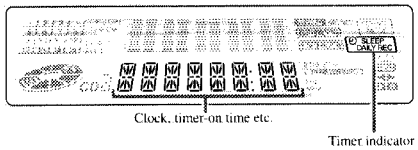
English

Using the Timer





Display



When the System is being used, the display shows other items as well. However, we have only shown the items described in this section.

The timers let you control recording and listening functions automatically.
Three types of timers are available:
- ■ **Daily Timer** — Use this timer to set wake up everyday to music from any source, instead of an alarm clock.
- ■ **Recording Timer** — Unattended recording of radio broadcasts. You can set the starting time and stopping time of the recording.
- ■ **Sleep Timer** — Fall asleep and have your Unit turn off automatically after a certain length of time.

Note: When operating the Daily Timer and Recording Timer, always set the clock first. If the clock is not set, the Daily Timer and Recording Timer functions cannot be used. For details, refer to "Setting the Clock" on page 9.

Setting the Daily Timer

With this timer you can wake up to music from a CD, tape, your favourite radio program.
■ You can set the Daily Timer whether the Unit is on or off.

Procedure For Setting the Daily Timer

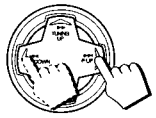
1. Press TIMER/CLOCK so that "DAILY" appears on the display.
The DAILY indicator flashes on the display. DAILY

- Each time you press the button, the timer setting indication changes as follows:
  DAILY → ON TIME (flashes) → **REC → ON TIME** (flashes) → Clock setting → Cancelled (current source) → (back to the beginning)

Note: If the clock has not been set, even if TIMER/CLOCK is pressed you cannot select the Daily Timer.

2. Press TIMER/CLOCK again.
After "ON TIME" flashes for 2 seconds, it switches to the on-time setting display.

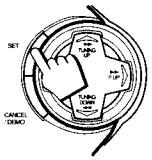
ON TIME ➡ 0:00
Flashing



3. Set the time you want the Unit to turn on.
Press ⏮ P. DOWN or ⏭ P. UP on the MULTI CONTROL to adjust the hours and press SET.
Then press ⏮ P. DOWN or ⏭ P. UP to adjust the minutes and press SET.

7:30 ➡ OFF TIME

- After adjusting the minutes and pressing SET, "OFF TIME" flashes for two seconds and on-time setting is completed.



4. Set the time you want the Unit to turn off.
Press ⏮ P. DOWN or ⏭ P. UP on the MULTI CONTROL to adjust the hours and press SET.
Then press ⏮ P. DOWN or ⏭ P. UP to adjust the minutes and press SET.

8:30 ➡ -- CD -- -- --

- When the off-time has been set, the indication on the display changes to the source selection.
- To select the source to be played, press ⏮ P. DOWN or ⏭ P. UP on the MULTI CONTROL until your choice is shown.

5. Select the source you want to listen to.
To use a CD as the source:

1. **Press ⏮ P. DOWN or ⏭ P. UP on the MULTI CONTROL repeatedly until "- CD - - -" flashes on the display and press SET.**

   -- CD -- -- --

2. **Press ⏮ P. DOWN or ⏭ P. UP on the MULTI CONTROL repeatedly to select the CD disc number to be played and press SET.**
   If you press SET without selecting a disc, the last disc played by the Unit will be used.

   3 CD -- -- --

3. **Press ⏮ P. DOWN or ⏭ P. UP on the MULTI CONTROL repeatedly to select the CD track number to be played and press SET.**
   If you press SET without selecting a track, playback will start from the first track on the CD.

   3 CD-05

To use the Tuner as the source
(Possible only after presetting stations):

1. **To listen to FM, press ⏮ P. DOWN or ⏭ P. UP on the MULTI CONTROL repeatedly until "TUNER FM" flashes and press SET.**
   To listen to AM, press ⏮ P. DOWN or ⏭ P. UP on the MULTI CONTROL repeatedly until "TUNER AM" flashes and press SET.

   TUNER FM or TUNER AM

2. **Press ⏮ P. DOWN or ⏭ P. UP on the MULTI CONTROL repeatedly to select the station to be listened to as a preset channel and press SET.**

   P-- 5

To use a Cassette Deck as the source:
Press ⏮ P. DOWN or ⏭ P. UP on the MULTI CONTROL repeatedly until "TAPE" flashes on the display and press SET.

TAPE

6. Setting the Volume Level.
Press ⏮ P. DOWN or ⏭ P. UP on the MULTI CONTROL to adjust the volume.

VOL -- -- --

VOL - 10: Sets the volume level to 10.
VOL - 15: Sets the volume level to 15.
VOL - 20: Sets the volume level to 20.
VOL - - -: Sets the volume to the last volume setting used.

7. Press SET.
The DAILY indicator stops flashing and remains lit. The on-time, off-time, playback source (including the disc number and track number if a CD source is selected), and volume level appears on the display. Turn the power off if you made the timer settings with the power turned on.

■ A few seconds before the on-time, the Unit automatically turns on the power. When the on-time comes, playback starts using the selected source. A few seconds before the off-time, "OFF" flashes on the display. When the off-time comes, the power is automatically turned off.
■ If a button is pressed when the Daily Timer is operating, playback continues but the timer is cancelled.

Before turning off the Unit

■ If the source is a CD, make sure that there is a CD in the selected disc number.
■ If the source is a tape:
- The tape in the deck corresponding to the Deck indicator mark is played. Make sure that there is a tape in the selected Cassette Deck.
- Check that the tape direction is correct. This is important especially when Reverse Mode is off.
- Set Reverse Mode on if you want to play both sides of the tape.

■ Select the Sound Mode if you want to listen using a Sound Mode effect.

To change the Daily Timer setting

To change the settings for the Daily Timer, repeat the setting procedure from the beginning.

Turning the Daily Timer On and Off

Once the Daily Timer has been set it will be activated at the same time every day until the setting is turned off.
To turn the Daily Timer off, press TIMER/CLOCK until "DAILY" appears on the display. Press CANCEL/DEMO. "OFF"appears on the display and the DAILY indicator goes out.
To turn the Daily Timer on again, press TIMER/CLOCK until "DAILY" appears on the display, then press SET. The Timer on-time, off-time, payback source (including the disc number and track number if a CD source is selected), and volume level appear on the display, and the DAILY indicator lights up.

CAUTION: If the Unit is unplugged, or a power failure occurs, the timer setting will be erased in a few days. If the settings are erased in this way, reset the timer settings.

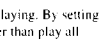
Setting the Recording Timer

With the Recording Timer you can make a tape of a radio broadcast automatically whether or not you are home. For the timer to work correctly, you need to make sure of the following in addition to setting the time for the Tuner and Cassette Deck to come on:

- You can set the Recording Timer whether the Unit is on or off.
- The tape you want to record onto must be in Deck B.

Procedure for Setting the Recording Timer

1. Press TIMER/CLOCK repeatedly until "REC" appears on the display.
The REC indicator flashes on the display.

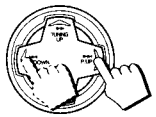


- Each time you press the button, the timer setting indication changes as follows:
  DAILY → ON TIME (flashes) → **REC → ON TIME** (flashes) → Clock setting → Cancelled (current source) → (back to the beginning)

Note: If the clock has not been set, even if TIMER/CLOCK is pressed you cannot select the Recording Timer.

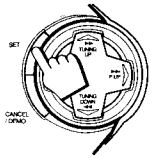
2. Press TIMER/CLOCK again.
After "ON TIME" flashes for 2 seconds, it switches to the time setting display.

3. Set the time you want the Unit to be turned on.
Press |◄◄ P. DOWN or ►►| P. UP on the MULTI CONTROL to adjust the hours and press SET. Then press |◄◄ P. DOWN or ►►| P. UP to adjust the minutes and press SET.



4. Set the time you want the Unit to be turned off.
Press |◄◄ P. DOWN or ►►| P. UP on the MULTI CONTROL to adjust the hours and press SET. Then press |◄◄ P. DOWN or ►►| P. UP to adjust the minutes and press SET.

5. Select the Recording band.
Press |◄◄ P. DOWN or ►►| P. UP on the MULTI CONTROL to select "TUNER FM" or "TUNER AM" and press SET.



6. Select the preset channel for the station to be recorded.
Press |◄◄ P. DOWN or ►►| P. UP on the MULTI CONTROL to select.

7. Press SET.
The REC indicator stops flashing and remains lit. The on-time, off-time, and Recording band ("TUNER FM" or "TUNER AM") appear on the display.
Turn the power off if you made the timer settings with the power turned on.

- A few seconds before the on-time for the recording, the Unit automatically turns on the power. When the on-time comes, recording starts using the selected source. A few seconds before the off-time, "OFF" flashes on the display. When the off-time comes, the power is automatically turned off.

Before the timer starts

- Check that tape direction is correct. This is important especially when Reverse Mode is off.
- Set Reverse Mode on if you want to record on both sides of the tape.
- The volume level is automatically set to 0 when Recording Timer starts.

It is very easy, and can be very disappointing, to forget to put in a tape, or to accidentally leave a tape in Deck B you don't want recorded over. Although this happens to almost everyone at one time or another, we hope it won't happen to you!

To change the Recording Timer setting

Repeat the setting procedure from the beginning.

Turning the Recording Timer On and Off

Once the Recording Timer has been used, the setting is maintained but the Timer is set to off.
To turn the Recording Timer off before the timer starts, press TIMER/CLOCK repeatedly until "REC" appears on the display, then press CANCEL/DEMO. "OFF" appears on the display and the REC indicator goes out.
To record at the same time again, press TIMER/CLOCK repeatedly until "REC" appears on the display, then press SET. The on-time, off-time, and Recording band ("TUNER FM" or "TUNER AM") appear on the display, and the REC indicator lights up.

CAUTION: If the Unit is unplugged, or a power failure occurs, the timer setting will be erased in a few days. If the settings are erased in this way, reset the timer settings.

Setting the Sleep Timer

Use the Sleep Timer to turn the Unit off after a certain number of minutes when it is playing. By setting this timer, you can fall asleep to music and know your Unit will turn off by itself rather than play all night.

- You can only set the Sleep Timer when the Unit is on and a source is playing.

To set the SLEEP Timer, follow this procedure:

1. With the Unit on and a source playing, press SLEEP on the Remote Control.
"SLEEP" appears on the display.

2. Set the length of time you want the source to play before shutting off.

- Each time you press this button while the SLEEP indicator is flashing, it changes the number of minutes shown on the display in this sequence:

  → **10 → 20 → 30 → 60 → 90 → 120** → Cancelled → (back to the beginning)

When the number of minutes you want shows on the display, just wait 5 seconds until the indicator stops flashing, and remains lit.
The Unit is now set to turn off after the number of minutes you set.

To change the Sleep Timer setting

Press SLEEP until the number of minutes you want appears on the display.

To cancel the Sleep Timer setting

Press SLEEP until the SLEEP indicator goes out on the display.
Turning off the Unit also cancels the Sleep Timer.

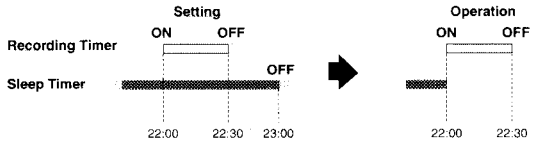
Timer Priority

Since each timer can be set independently, you may wonder what happens if the settings overlap. Here are the priorities for each timer:

■ The Recording Timer always has priority. This means that:
- If another timer is set to come on during a time when the Recording Timer is operating, the other timer just will not come on at all, so you will always get the entire program on tape.
- If the Recording Timer is set to come on while another timer is operating, the other timer will shut off 10 seconds before the Recording Timer is set to turn on, and the Recording Timer will then take over.

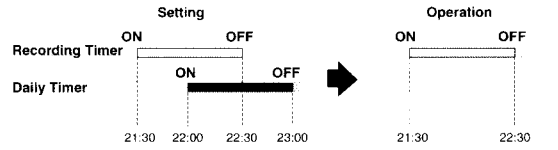
■ If the Sleep Timer is set while the Daily Timer is operating, the Sleep Timer will take over. However, if the Daily Timer is set to come while the Sleep Timer is operating, the Daily Timer will take over.

Example 1



The Recording Timer has priority.

Example 2



The Recording Timer has priority.

English

English

Care and Maintenance

Compact Discs

Handle your compact discs, cassette tapes, and Cassette Deck carefully, and they will last a long time.

- Remove the CD from the case by holding it at the edges while pressing the center hole lightly.
- Do not touch the shiny surface of the CD, or bend the CD.

- Put the CD back in its case after use to prevent warping.
- Be careful not to scratch the surface of the CD when placing it back in the case.
- Avoid exposure to direct sunlight, temperature extremes, and moisture.

- A dirty CD may not play correctly. If a CD does become dirty, wipe it with a soft cloth in a straight line from center to edge.

CAUTION: Do not use any solvent (for example, conventional record cleaner, spray thinner, benzine, etc.) to clean a CD.

Moisture Condensation

Moisture may condense on the lens inside the Unit in the following cases:
- After starting the heating in the room.
- In a damp room.
- If the Unit is brought directly from a cold to a warm place.

Should this occur, the Unit may malfunction. In this case, leave the Unit turned on for a few hours until the moisture evaporates, unplug the AC power cord, and then plug it in again.

General Notes

In general, you will have the best performance by keeping your tapes, CDs, and the mechanism clean.
- Store tapes and CDs in their cases, and keep them in cabinets or on shelves.
- Keep the Cassette Deck's tape doors and the CD trays closed when not in use.

Cassette Tapes

- If the tape is loose in its cassette, take up the slack by inserting a pencil in one of the reels and rotating.
- If the tape is loose, it may get stretched, cut, or caught in the cassette.

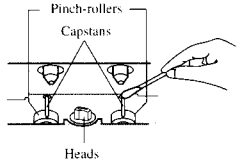
- Do not touch the tape surface.

- Do not store the tape:
  - In dusty places
  - In direct sunlight or heat
  - In moist areas
  - On a TV or speaker
  - Near a magnet

Cassette Deck

- If the heads, capstans, and pinch-rollers of the Cassette Deck become dirty, the following will occur:
  - Loss of sound quality
  - Discontinuous sound
  - Fading
  - Incomplete erasure
  - Difficulty recording

- Clean the heads, capstans, and pinch-rollers using a cotton swab moistened with alcohol.



- If the heads become magnetized, the Unit will produce noise or lose high frequencies.

- To demagnetize the heads, turn off the Unit, and use a head demagnetizer (available at electronics and record shops).

Troubleshooting

- If you are having a problem with your System, check this list for a possible solution before calling for service.
- If you cannot solve the problem from the hints given here, or the Unit has been physically damaged, call a qualified person, such as your dealer, for service.

Symptom	Possible Cause	Action
No sound is heard.	Connections are incorrect, or loose.	Check all connections and make corrections. (See pages 4 - 6.)
Unable to record.	Cassette record protect tabs are removed.	Cover holes on back edge of cassette with tape.
Poor radio reception	• The antenna is disconnected. • The AM Loop Antenna is too close to the Unit. • The FM Wire Antenna is not properly extended and positioned.	• Reconnect the antenna securely. • Change the position and direction of the AM Loop Antenna. • Extend FM Wire Antenna to the best reception position.
The CD skips.	The CD is dirty or scratched.	Clean or replace the CD.
Unable to operate the Remote Control.	• The path between the Remote Control and the sensor on the Unit is blocked. • The batteries have lost their charge.	• Remove the obstruction. • Replace the batteries.
The CD tray cannot be opened.	The main AC power cord is not plugged in.	Plug in the AC power plug.
The CD does not play.	The CD is upside down.	Put the CD in with the label side up.
Operations are disabled.	The built-in microprocessor has malfunctioned due to external electrical interference.	Unplug the Unit then plug it back in.
The cassette door cannot be opened.	During tape playing, the power cord was unplugged.	Plug in the power cord, press ⏻/I, and then press ⏏.

Specifications

Amplifier Section

Output Power (IEC 268-3/DIN)
- Front: 45 watts per channel, min. RMS, both channels driven into 6 ohms at 1 kHz with no more than 0.9% total harmonic distortion.
- Centre: 25 watts, min. RMS, driven into 8 ohms at 1 kHz with no more than 0.9% total harmonic distortion.
- Rear: 12.5 watts per channel, min. RMS, both channels driven into 16 ohms at 1 kHz with no more than 0.9% total harmonic distortion.

Input Sensitivity/Impedance (1 kHz)
- AUX: 300 mV/50 kohms
- Speaker terminals: 6 - 16 ohms

Cassette Deck Section

Frequency Response
- Type II (CrO_2): 50 - 14,000 Hz
- Type I (NORMAL): 50 - 14,000 Hz
- Wow And Flutter: 0.15% (WRMS)

CD Automatic Changer Section

- CD Capacity: 3 discs
- Dynamic Range: 85 dB
- Signal-To-Noise Ratio: 90 dB
- Wow And Flutter: Unmeasurable

Tuner Section

FM Tuner
- Tuning Range: 87.5 - 108.0 MHz

AM Tuner
Tuning Range
- MW: 522 - 1,629 kHz
- LW: 144 - 288 kHz

- Dimensions: 265 × 315 × 340 mm (W/H/D) (10-7/16 × 12-7/16 × 13-7/16 inches)
- Mass: 9.0 kg (19.8 lbs)

Accessories

AM (MW/LW) Loop Antenna (1)
Remote Control (1)
Batteries R6P (SUM-3)/AA (15F) (2)
FM Wire Antenna (1)

Power Specifications

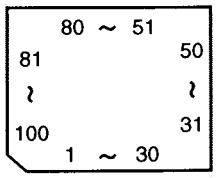
- Power Requirements: AC 230 V ∿, 50 Hz
- Power Consumption: 160 watts
  12 watts (in standby mode)

Design and specifications are subject to change without notice.

Description of Major ICs

■UPD780206GF-039 (IC801) : System control micon

1.Terminal Layout

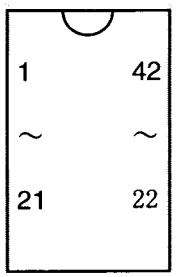


2.Pin Function

No.	Symbol	I/O	Function	No.	Symbol	I/O	Function
1	VDD	-	Power supply.	33	SPIDTI	I	SPI DATA analog signal input.
2	SPICSB	O	SPI IC chip select signal output.	34	AVDD	-	Power supply for AD converter.
3	SPIA	O	SPI IC control-A.	35	AVREF	-	A/D REF voltage.
4	SPIB	O	SPI IC control-B.	36	$\overline{\text{REMIN}}$	I	Remote control signal input.
5	PHOTOA	I	Tape A mechanism running detection.	37	$\overline{\text{MPX}}$	I	MPX IN (Stereo INDI.)
6	PHOTOB	I	Tape B mechanism running detection.	38	$\overline{\text{OSDCK/RDCK}}$	I/O	OSD clock output or RDS clock input.
7	MSI	I	Music scan input.				
8	SPIC	O	SPI IC control-C	39	$\overline{\text{PRT}}$	I	Protector input.
9	BEAT	O	Beat cut output (TUNER).	40	VSS	-	Connect to GND.
10	$\overline{\text{RESET}}$	I	System reset signal.	41	$\overline{\text{INH}}$	I	Inhibit signal input (Back up).
11	X2	O	Main clock 4.19MHz.	42	HPHONE	I	Headphone input.
12	X1	I	Main clock 4.19MHz.	43	OSDDA/RSDA	I/O	OSD data output or RDS data input.
13		-	Non connect.				
14	XT2	-	Sub clock 32.76kHz.	44	PROSACK	O	Prologic/SA Bass/EXT IC clock.
15	XT1	-	Sub clock 32.76kHz.	45	PROSADA	O	Prologic/SA Bass/EXT IC data.
16	VDD	-	Power supply.	46	VDD	-	Power supply.
17	CK	O	Serial clock signal output to IC304 IC303,IC802,IC2.	47	FVOLDA	O	Front VOL data output to IC401.
				48	VOLCK	O	Clock signal output to IC401.
18	DATA	I/O	Serial data signal output to IC304 IC303,IC802,IC2.	49	RVOLDA	O	Rear VOL data output.
				50	OSDOFF	I	OSD OFF.
19	POUT	O	Power ON/Standby.	51	SLCCE	O	Chipenable signal output to IC303,IC304.
20	VC3RESET	O	Reset signal output to IC251.				
21	MRDY	I	Ready signal from IC251.	52	TUCE	O	Chip enable signal to Tuner (IC2).
22	KCLK	I	Clock signal from IC251.	53	PROCE	O	Chip enable signal to prologic.
23	KCMND	O	Command to IC251.	54	SABCE	O	Chip enable signal to SA Bass.
24	MSTAT	I	VC3 MSTAT.	55	OSDCE	O	Chip enable signal to OSD.
25	AVSS	-	Connect to GND.	56	DSPCE	O	Chip enable signal to DSP.
26	KEY1	I	Key matrix signal input.	57	EXTCE	O	Chip enable signal to EXT(IC802).
27	KEY2	I	Key matrix signal input.	58	SMUTE	O	System mute output.
28	KEY3	I	Key matrix signal input.	59	VOLU+	I	Rotary encoder VOL +
29	KEY4	I	Key matrix signal input.	60	VOLU-	I	Rotary encoder VOL -
30	SLCKEY1	I	SLC Key input	61~78	S1~S18	O	FL segmant control signal.
31	SLCKEY2	I	SLC Key input	79	VLOAD	-	Power supply.
32	SLCKEY3	I	SLC Key input	80~91	S19~S30	O	FL segment control signal.
				92~100	G9~G1	O	FL grid control signal.

■ LA2786 (IC501) : Dolby Pro Logic Surround Signal Processor

1. Terminal Layout

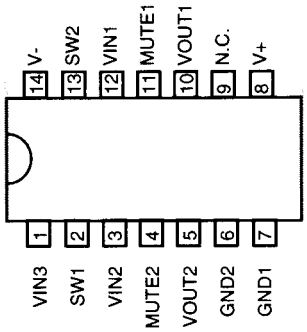


2. Pin Functions

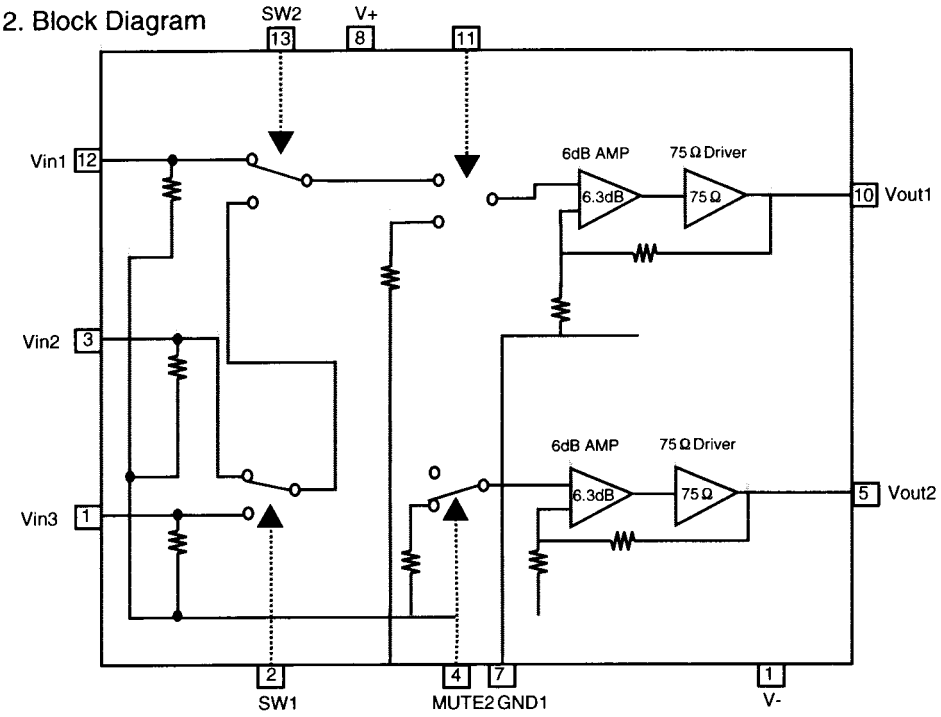
Pin No	Symbol	I/O	Function	Pin No	Symbol	I/O	Function
1	NS-BPF1	--	Capacitor for spectrum in noise sequencer	22	VCS-1	--	Capacitor for time constant (in log defferential area)
2	NS-BPF2	--	Capacitor for spectrum in noise sequencer	23	VCS-2	--	Capacitor for time constant (in log defferential area)
3	VREF	--	Analog reference voltage	24	VCS-TH	--	Capacitor for time constant (in log defferential area)
4	S-DC-OUT	--	Capacitor for DC-cut Sch	25	L+R RECT	--	Capacitor for Center Channel detection
5	C-DC-OUT	--	Capacitor for DC-cut Cch	26	DC-CUT	--	Capacitor for DC-cut at detection circuit
6	L-DC-OUT	--	Capacitor for DC-cut Lch	27	L-R RECT	--	Capacitor for Surround channel detection
7	R-DC-OUT	--	Capacitor for DC-cut Rch	28	DC-CUT	--	Capacitor for DC-cut at detection circuit
8	VREF BUFFER	--	VREF low impedance	29	R-BPF3	--	LPF,HPF for Lch Right channel control circuit
9	L-IN	I	Left channel signal input	30	R-BPF2	--	LPF,HPF for Lch Right channel control circuit
10	R-IN	I	Ground	31	R-BPF1	--	LPF,HPF for Lch Right channel control circuit
11	GND	--	LPF,HPF for Lch control	32	C-TRIM DC-CUT	--	Capacitor for DC-cut Center Channel
12	L-BPF1	--	LPF,HPF Left channel control circuit	33	C-MODECAP8	--	Capacitor for Center Channel output low pass filter
13	L-BPF2	--	LPF,HPF Left channel control circuit	34	C-OUT	O	Center signal output
14	L-BPF3	--	LPF,HPF Left channel detection	35	S-OUT	O	Surround signal output
15	DC-CUT	--	Capacitor for DC-cut at detection circuit	36	R-OUT	O	Right channel signal output
16	R RECT	--	Capacitor Right channel detection	37	L-OUT	O	Left channel signal output
17	DC-CUT	--	Capacitor for DC-cut at detection circuit	38	Vcc	--	Power supply
18	L RECT	--	Capacitor for Left channel detection	39	OSC	--	Oscillation for noise sequencer and auto balance
19	VLR-TH	--	Capacitor for time constant (in log differential area)	40	STB	I	Strobe signal input
20	VLR-2	--	Capacitor for time constant (in log defferential area)	41	DATA	I	Serial interface data input
21	VLR-1	--	Capacitor for time constant (in log defferential area)	42	CLK	I	Serial interface clock

■ LV1016 (IC541) : Dolby Surround Passive Decoder

1. Terminal Layout

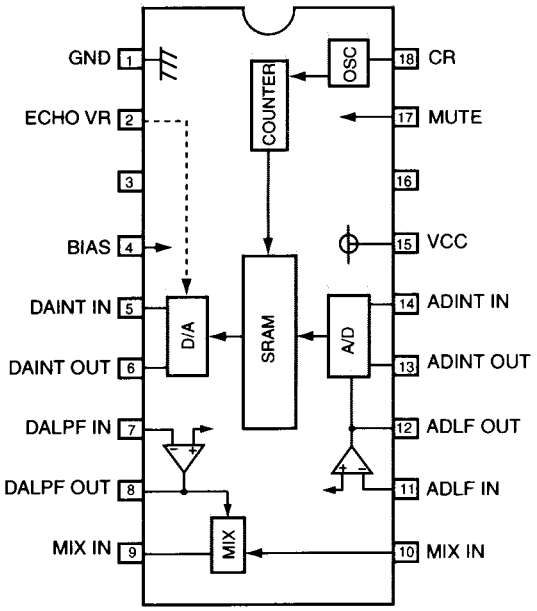


2. Block Diagram



■ BU9253AS (IC201) : Echo Mixing

1.Block Diagram

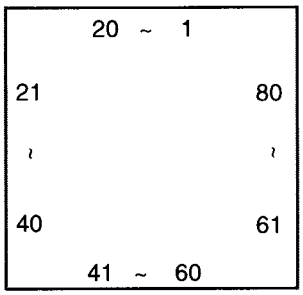


2.Pin Function

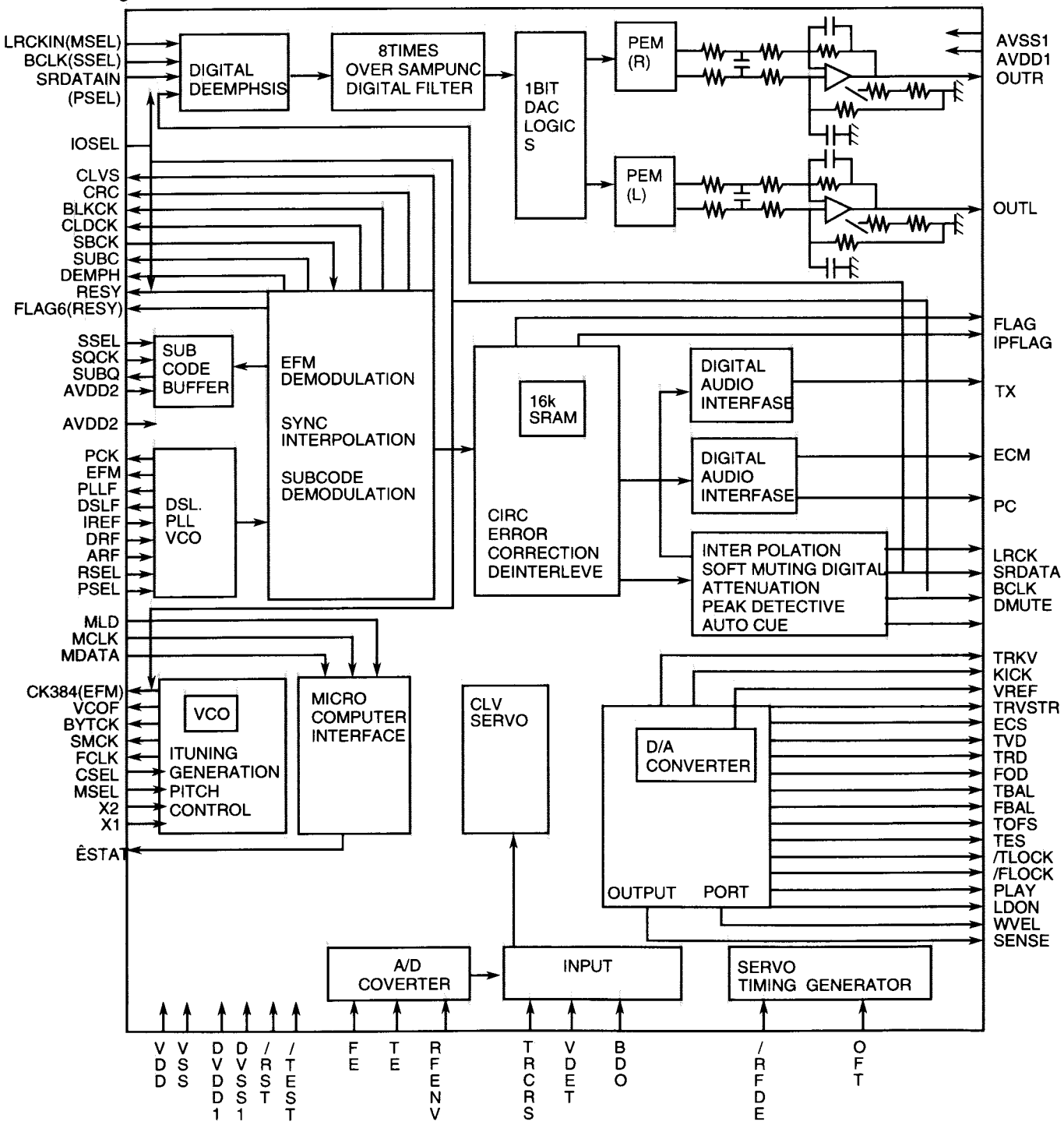
Pin No.	Symbol	I/O	Function
1	GND	-	Ground pin
2	ECHO VR Echo	I	Echo level control
3	NC1	-	Non connection
4	BIAS	-	Analog part DC bias
5	DAINT IN	I	DA side Integrator input
6	DAINT OUT	O	DA side integrator output
7	DALPF IN	I	DA side LPF input
8	DALPF OUT	O	DA side LPF output
9	MIX OUT	O	Mix AMP input pin for original tone
10	MIX IN	I	Mix AMP input pin for original tone
11	ADLPF IN	I	AD side LPF input
12	ADLPF OUT	O	AD side LPF output
13	ADINT OUT	O	AD side Integrator output
14	ADINT IN	I	AD side integrator input
15	VCC	-	VCC pin
16	NC2	-	Non connection
17	MUTE	I	Mute control
18	CR	-	CR pin for Oscillator

■ MN35510 (IC651) : DIGITAL SERVO&DIGITAL SIGNAL PROCESSER

1. Terminal Layout

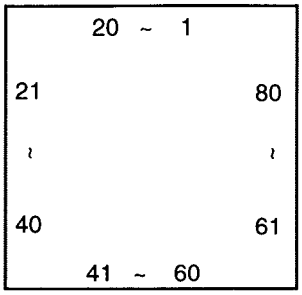


2.Block Diagram

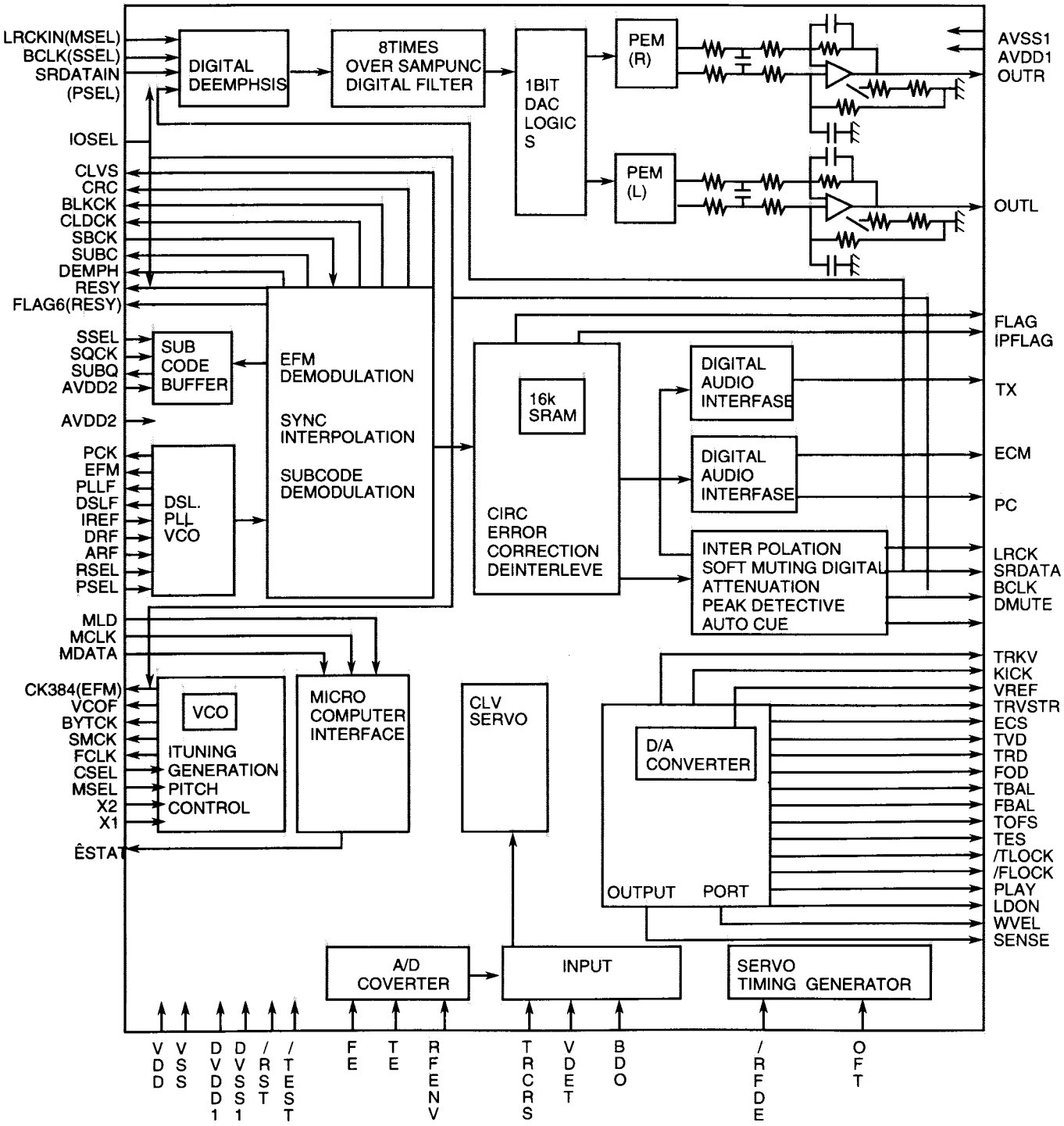


■ MN35510 (IC651) : DIGITAL SERVO&DIGITAL SIGNAL PROCESSER

1. Terminal Layout



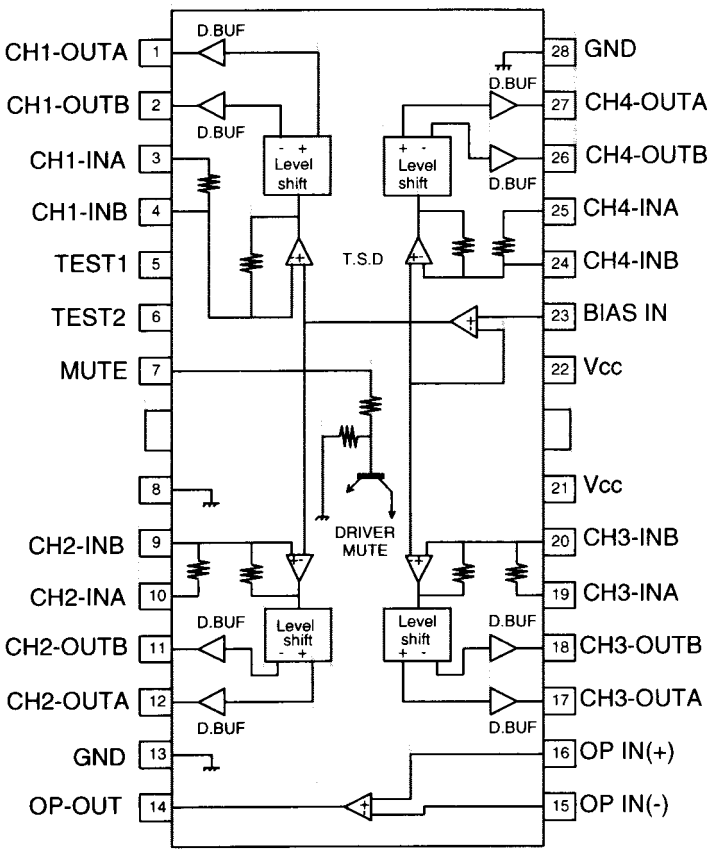
2.Block Diagram



3. Description

Pin No.	symbol	I/O	Description	Pin No.	symbol	I/O	Description
1	BCLK	O	Not used	41	TES	O	Tracking error shunt signal output(H:shunt)
2	LRCK	O	Not used	42	PLAY	–	Not used
3	SRDATA	O	Not used	43	WVEL	–	Not used
4	DVDD1	–	Power supply (Digital)	44	ARF	I	RF signal input
5	DVSS1	–	Connected to GND	45	IREF	I	Reference current input pin
6	TX	O	Digital audio interface output	46	DRF	I	Bias pin for DSL
7	MCLK	I	μcom command clock signal input (Data is latched at signal's rising point)	47	DSLF	I/O	Loop filter pin for DSL
8	MDATA	I	μcom command data input	48	PLLF	I/O	Loop filter pin for PLL
9	MLD	I	μcom command load signal input	49	VCOF	–	Not used
10	SENSE	O	Sence signal output	50	AVDD2	–	Power supply(Analog)
11	FLOCK	O	Focus lock signal output Active :Low	51	AVSS2	–	Connected to GND(Analog)
12	TLOCK	O	Tracking lock signal output Active :Low	52	EFM	–	Not used
13	BLKCK	O	sub-code·block·clock signal output	53	PCK	–	Not used
14	SQCK	I	Outside clock for sub-code Q resister input	54	PDO	–	Not used
15	SUBQ	O	Sub-code Q -code output	55	SUBC	–	Not used
16	DMUTE	–	Connected to GND	56	SBCK	–	Not used
17	STATUS	O	Status signal (CRC,CUE,CLVS,TTSTOP,ECLV,SQOK)	57	VSS	–	Connected to GND(for X'tal oscillation circuit)
18	RST	I	Reset signal input (L:Reset)	58	XI	I	Input of 16.9344MHz X'tal oscillation circuit
19	SMCK	–	Not used	59	X2	O	Output of X'tal oscillation circuit
20	PMCK	–	Not used	60	VDD	–	Power supply(for X'tal cscillation circuit)
21	TRV	O	Traverse enforced output	61	BYTCK	–	Not used
22	TVD	O	Traverse drive output	62	CLDCK	–	Not used
23	PC	–	Not used	63	FLAG	–	Not used
24	ECM	O	Spindle motor drive signal (Enforced mode output) 3-State	64	IPPLAG	–	Not used
25	ECS	O	Spindle motor drive signal (Servo error signal output)	65	FLAG	–	Not used
26	KICK	O	Kick pulse output	66	CLVS	–	Not used
27	TRD	O	Tracking drive output	67	CRC	–	Not used
28	FOD	O	Focus drive output	68	DEMPH		Not used
29	VREF	I	Reference voltage input pin for D/A output block (TVD,FOD,FBA,TBAL)	69	RESY	–	Not used
30	FBAL	O	Focus Balance adjust signal output	70	IOSEL	–	pull up
31	TBAL	O	Tracking Balance adjust signal output	71	TEST	–	pull up
32	FE	I	Focus error signal input(Analog input)	72	AVDD1	–	Power supply(Digital)
33	TE	I	Tracking error signal input(Analog input)	73	OUT L	O	Lch audio output
34	RF ENV	I	RF envelope signal input(Analog input)	74	AVSS1	–	Connected to GND
35	VDET	I	Vibration detect signal input(H:detect)	75	OUT R	O	Rch audio output
36	OFT	I	Off track signal input(H:off track)	76	RSEL	–	pull up
37	TRCRS	I	Track cross signal input	77	CSEL	–	Connected to GND
38	RFDET	I	RF detect signal input(L:detect)	78	PSEL	–	Connected to GND
39	BDO	I	BDO input pin(L:detect)	79	MSEL	–	Connected to GND
40	LDON	O	Laser ON signal output(H:on)	80	SSEL	–	Pull up

■ BA6897FP (IC801) : 4channel driver

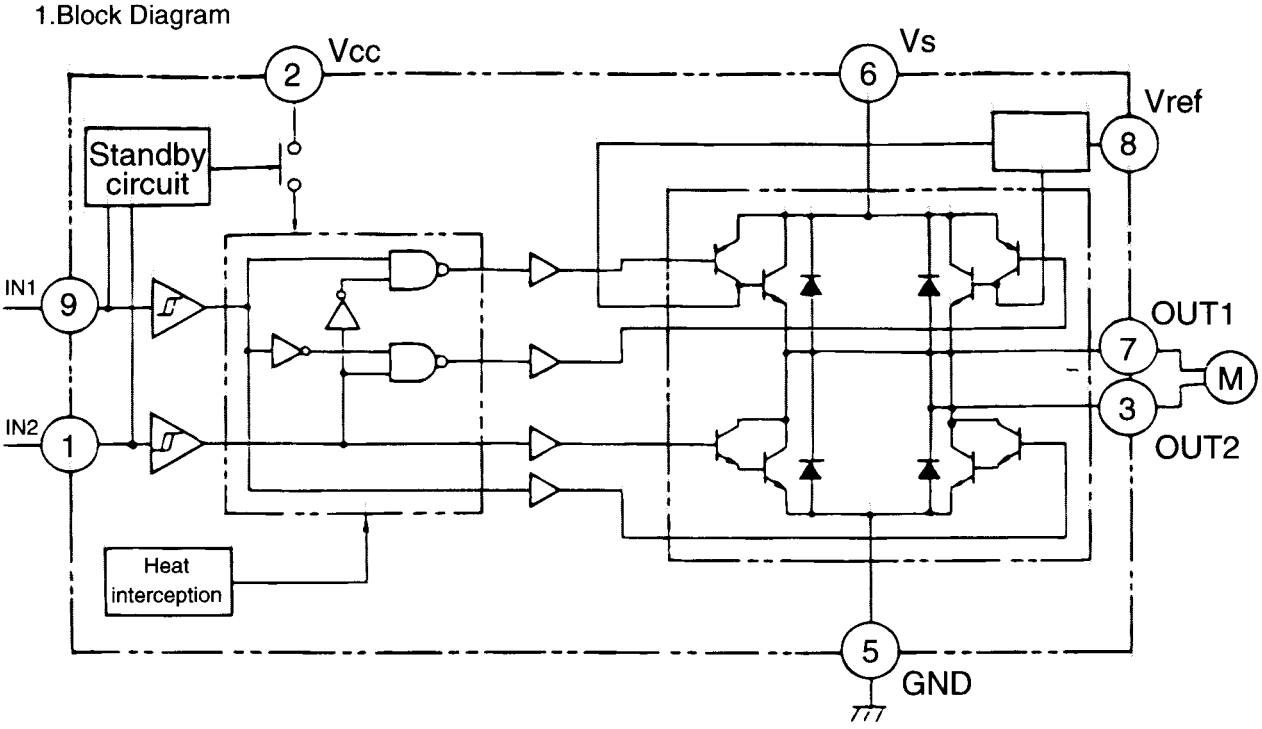


3. Functions

Pin No.	Symbol	I/O	Functions and operations
1	PD	I	APC amp input terminal
2	LD	O	APC amp output terminal
3	LD ON	I	APC ON/OFF control terminal
4	LDP	--	Connect to ground
5	VCC	--	Power supply
6	RF-	I	Inverse input pin for RF amp
7	RF OUT	O	RFamp output
8	RF IN	I	RF input
9	C.AGC	I/O	Connecting pin of AGC loop filter
10	ARF	O	RF output
11	C.ENV	I/O	A capacitor is connected to this terminal to detect the envelope of RF signal
12	C.EA	I/O	A capacitor is connected to this terminal to detect the envelope of RF signal
13	CS BDO	I/O	A capacitor is connected to detect the lower envelope of RF signal
14	BDO	O	BDO output pin
15	CS BRT	I/O	A capacitor is connected to detect the lower envelope of RF signal
16	OFTR	O	Of-track status signal output
17	/NRFDET	O	RF detection signal output
18	GND	--	Ground
19	ENV	O	Envelope output
20	VREF	O	Reference voltage output
21	LD OFF	--	Connect to ground
22	VDET	O	Vibration detection signal output
23	TE BPF	I	Input pin of tracking error through BPF
24	CROSS	O	Tracking error cross output
25	TE OUT	O	Tracking error signal output
26	TE-	I	Inverse input pin for tracking error amp
27	FE OUT	O	Output pin of focus error
28	FE-	I	Inverse input pin for focus error amp
29	FBAL	I	Focus balance control
30	TBAL	I	Tracking balance control
31	PDFR	I/O	F I-V amp gain control
32	PDER	I/O	E I-V amp gain control
33	PDF	I	I-V amp input
34	PDE	I	I-V amp input
35	PD BD	I	I-V amp input
36	PD AC	I	I-V amp input

■ TA8409S (IC851.852) : CD Changer Motor Driver

1.Block Diagram

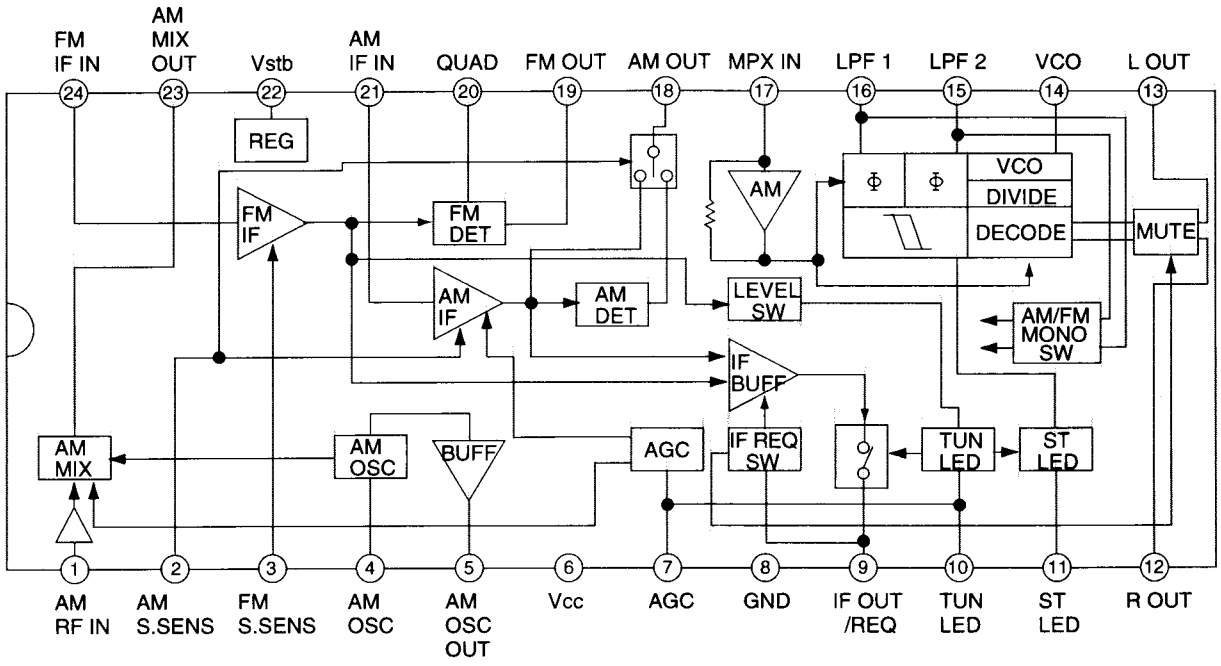


2.Function

INPUT		OUTPUT		MODE
IN1	IN2	OUT1	OUT2	MOTOR
0	0	∞	∞	STOP
1	0	H	L	CW/CCW
0	1	L	H	CCW/CW
1	1	L	L	BRAKE

■ TA2057N (IC1) : FM/AM IF AMP & Detector

1.Block Diagrams

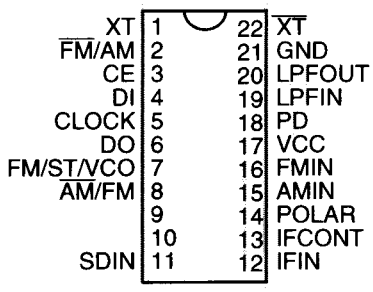


2.Pin Function

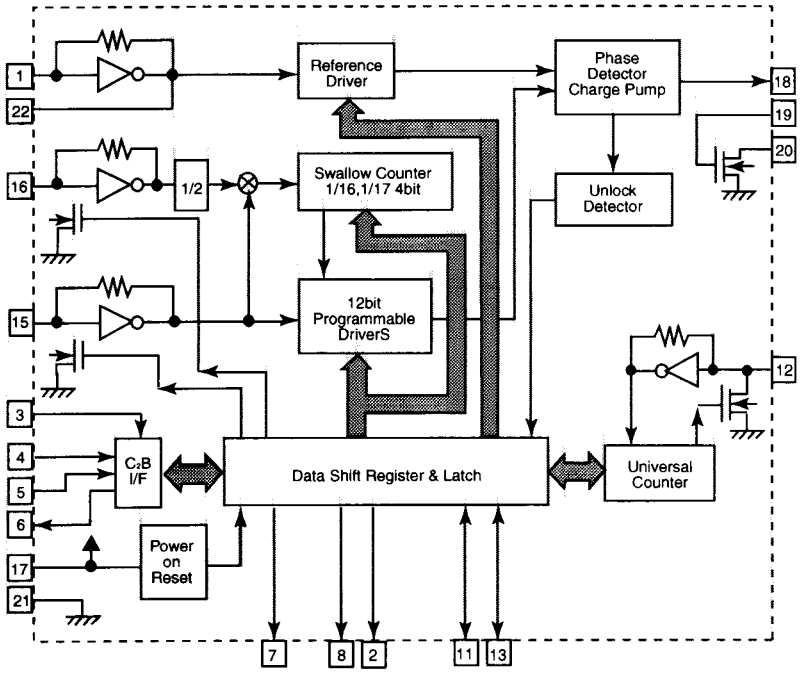
Pin No.	I/O	Symbol	Function	Pin No.	I/O	Symbol	Function
1	I	AM RF	AMRF signal input	13	O	Lch OUT	Output Lch
2		AM S.SENS		14	O	VCO	Voltage controlled terminal
3		FM S.SENS		15	O	LPF2	When voltage of terminal is MONO
4	-	AM OSC	AM local oscillation circuit				at "H" and ST at "L"
5	O	AM OSC OUT	AM local oscillation signal output	16	O	LPF1	When voltage of terminal is AM at
6	-	VCC	Power supply				"H" and FM at "L"
7	I	AGC	AGC voltage input terminal	17	I	MPX IN	Multi plex signal input
8	-	GND	Connect to GND	18	O	AM OUT	AM detection signal output
9	O	IF OUT	IF REQ signal output to IC2	19	O	FM OUT	FM detection signal output
10	O	TU IND	Indicator drive output when tuning	20	I	FM QUAD	Bypass to FMIF
11	O	ST IND	Stereo indicator output	21	I	AM IF IN	Input of AMIF signal
			"H"mono . "L"stereo	22	-	Vst	Fixed voltage output terminal
12	O	Rch OUT	Output Rch	23	O	AM MIX OUT	Output terminal for AM mixer
				24	I	FM IF IN	Input of FMIF signal

■ LC72136N (IC2) : PLL Frequency sinsesizer LSI

1. Layout



2. Block

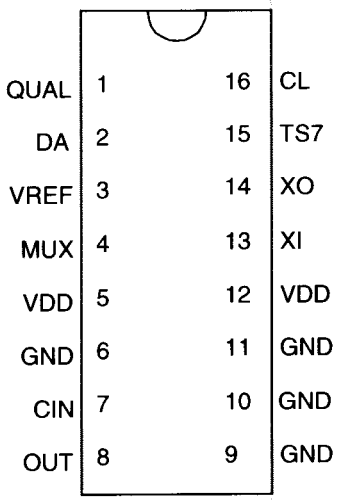


3. Function

Pin No.	Symbol	I/O	Function	Pin No.	Symbol	I/O	Function
1	XT	I	X'tal oscillator connect (75KHz)	12	IFIN	I	IF counter signal input
2	$\overline{FM}$/AM	O	LOW:FM mode	13	IFCONT	O	IF signal output
3	CE	I	When data output/input for 4pin(input) and 6pin(output): H	14	POLAR	O	FM High Band:Low FM Low Band(Auto):High (Mono):Low
4	DI	I	Input for receive the sirisl data from controller	15	AMIN	I	AM Local OSC signal output
5	CLOCK	I	Sync signal input use	16	FMIN	I	FM Local OSC signal input
6	DO	O	Data output for Controller Output port	17	VCC	-	Power suplly(VDD=4.5~5.5V) When power ON:Reset circuit move
7	FM/ST/VCO	O	"Low": MW mode	18	PD	O	PLL charge pump output(H: Local OSC frequency Height than Reference frequency. L: Low Agreement: Height impedance)
8	$\overline{AM}$/FM	O	Not use	19	LPFIN	I	Input for active lowpassfilter of PLL
9		-	Not use	20	LPFOUT	O	Output for active lowpassfilter of PLL
10		-	Input/output port	21	GND	-	Connected to GND
11	SDIN	I/O	Data input/output	22	$\overline{XT}$	I	X'tal oscillator(75KHz)

■ BU1923 (IC4) : RDS Detector

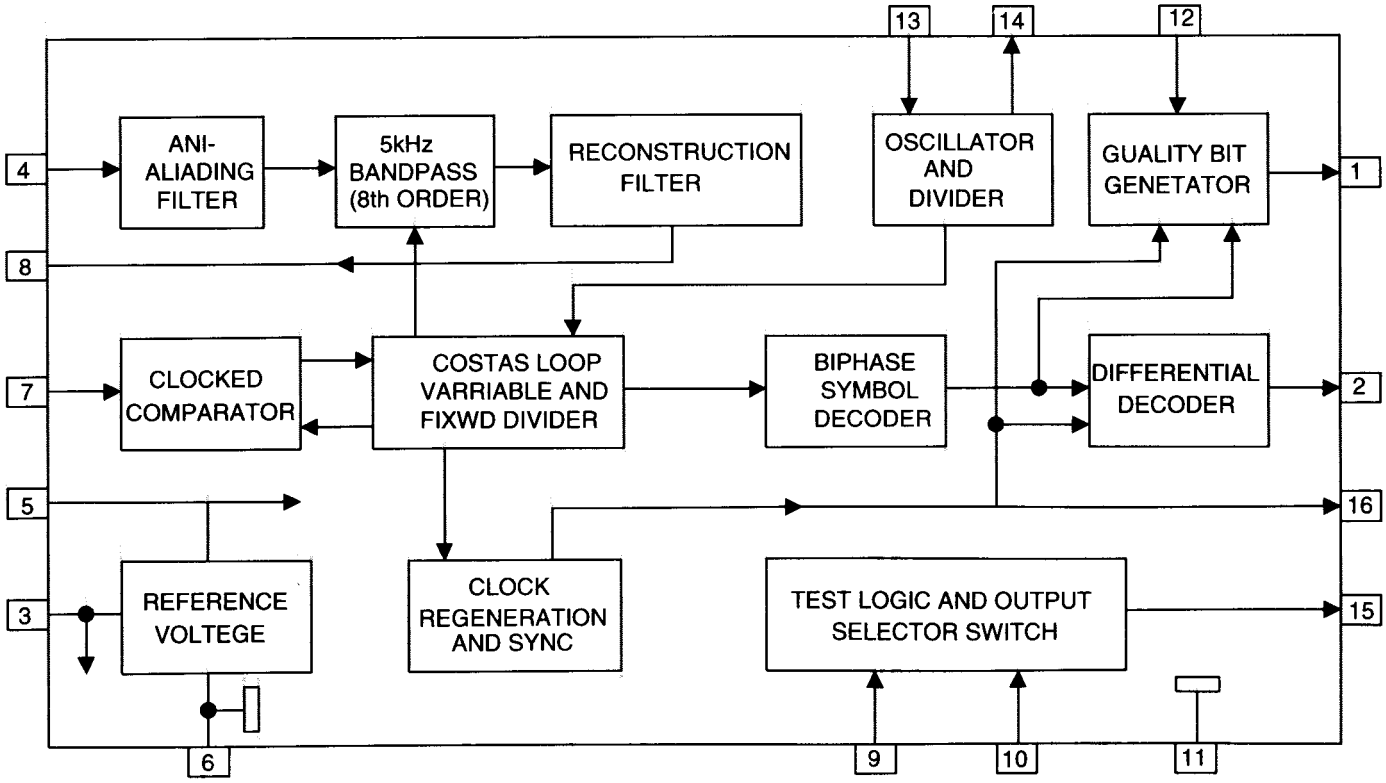
1.Terminal Layout



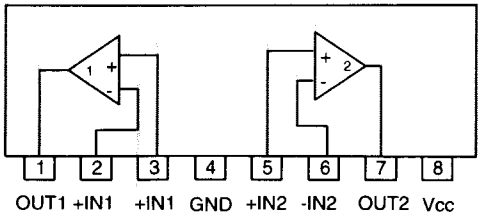
2.Pin Functiont

Pin No.	Symbol	I/O	Function
1	QUAL	--	Non connection
2	DA	O	RDS data output
3	VREF	O	Reference voltage output
4	MUX	I	Multiplex signal input
5	VDD	--	+5Vsupply voltage for analog
6	GND	--	Ground for analog part(0V)
7	CIN	I	Subcarrier outputof reconstruction filter
8	OUT	O	Ground for digital part(0V)
9	GND	--	Ground for digital part(0V)
10	GND	--	Ground for digital part(0V)
11	GND	--	Ground for digital part(0V)
12	VDD	--	+5Vsupply voltage for digital part
13	XI	I	Oscilator input
14	XO	O	Oscilator output
15	TS7	--	Non connection
16	CL	O	RDS clock output

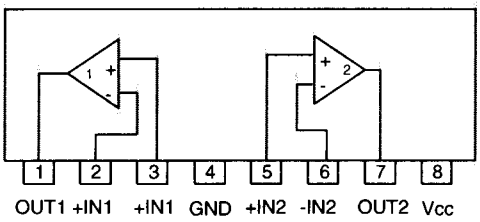
3.Block Diagram



■ BA15218 (IC7, IC402, IC403, IC405, IC407, IC562) : Dual Ope Amp

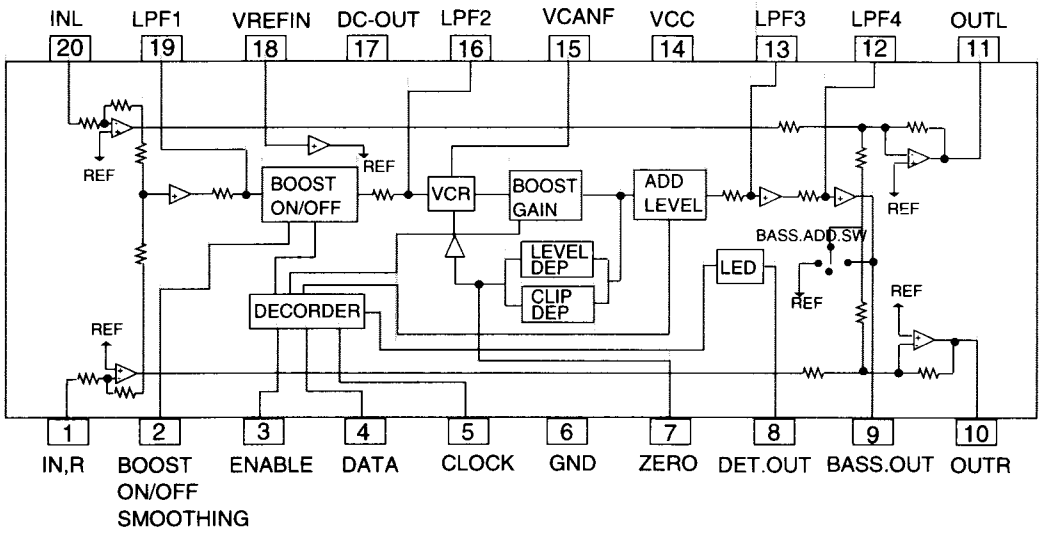


■ BA15218N (IC202) : Dual Ope Amp

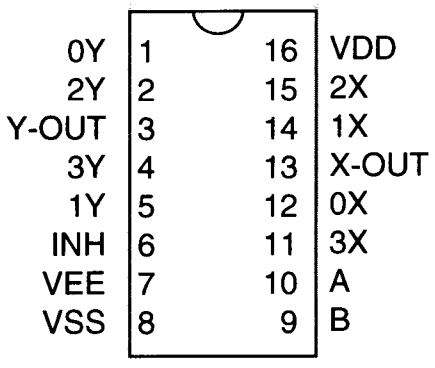


■ LA2650 (IC406) : SA BASS

1.Terminal Layout / Block diagram



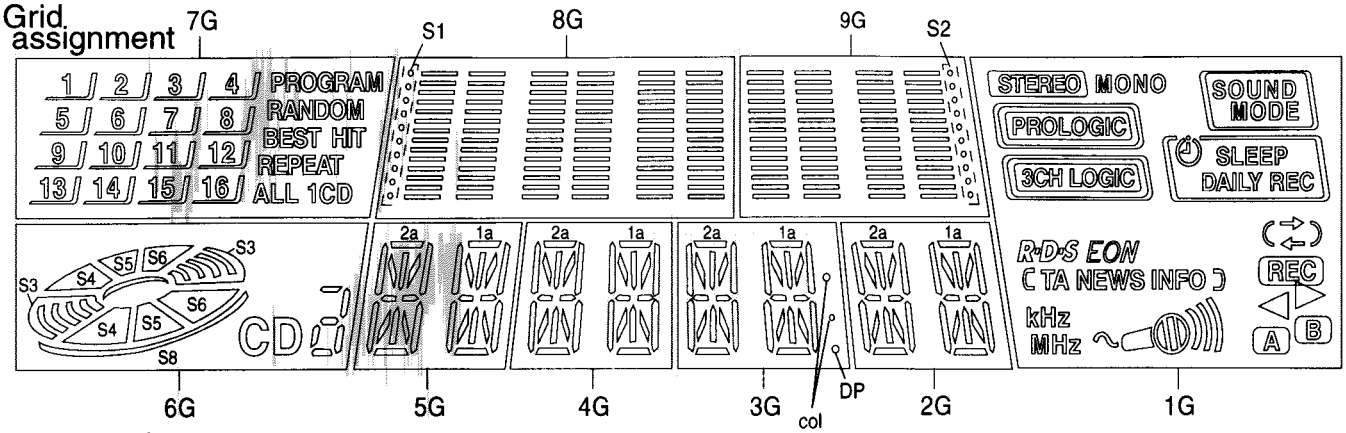
■ TC4052BP (IC404) : Multipllexer

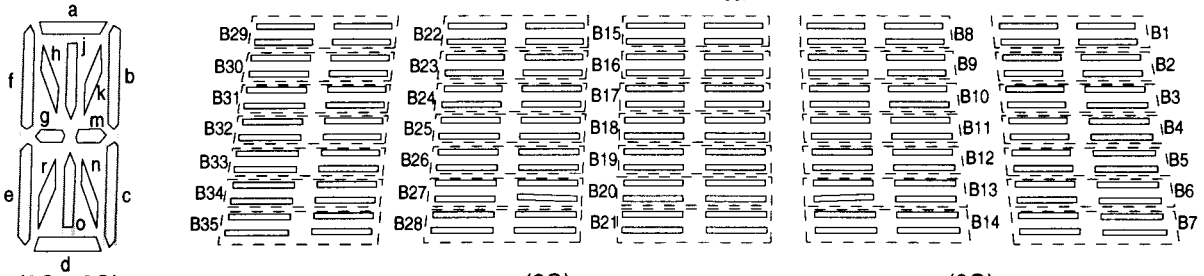


INHIBIT	B	A	X-OUT	Y-OUT
L	L	L	0X	0X
L	L	H	1X	1X
L	H	L	2X	2X
L	H	H	3X	3X
L	L	L	-	-
L	L	H	-	-
L	H	L	-	-
L	H	H	-	-
H	*	*	NONE	NONE

FL Tube

Grid assignment





(5G~2G) (8G) (9G)

Anode connection

	9G	8G	7G	6G	5G,4G	3G	2G	1G
P1	B1	B15	1	S3	2a	2a	2a	STEREO
P2	B2	B16	2	S4	2h	2h	2h	PROLOGIC
P3	B3	B17	3	S5	2j	2j	2j	
P4	B4	B18	4	S6	2k	2k	2k	
P5	B5	B19	5	S7	2b	2b	2b	3CH LOGIC
P6	B6	B20	6	S8	2f	2f	2f	REC
P7	B7	B21	7	CD	2m	2m	2m	
P8	-	-	8	d	2g	2g	2g	SLEEP
P9	-	B29	9	e	2c	2c	2c	DAILY
P10	-	B30	10	c	2e	2e	2e	SOUND MODE
P11	-	B31	11	g	2r	2r	2r	
P12	-	B32	12	b	2p	2p	2p	
P13	-	B33	RANDOM	a	2n	2n	2n	
P14	-	B34	BEST HIT	-	2d	2d	2d	kHz
P15	-	B35	REPEAT	-	-	col	-	MHz

	9G	8G	7G	6G	5G,4G	3G	2G	1G
P16	-	-	-	-	-	Dp	-	REC
P17	B8	B22	13	-	1a	1a	1a	TA
P18	B9	B23	14	-	1h	1h	1h	R·D·S
P19	B10	B24	15	-	1j	1j	1j	EON
P20	B11	B25	16	-	1k	1k	1k	NEWS
P21	B12	B26	ALL	-	1b	1b	1b	INFO
P22	B13	B27	1	-	1f	1f	1f	((TA)
P23	B14	B28	CD	-	1m	1m	1m	(INFO))
P24	S2	S1	PROGRAM	-	1g	1g	1g	( )
P25	-	-	-	-	1c	1c	1c	⇨ ⇦
P26	-	-	-	-	1e	1e	1e	▷
P27	-	-	-	-	1r	1r	1r	◁
P28	-	-	-	-	1p	1p	1p	A
P29	-	-	-	-	1n	1n	1n	B
P30	-	-	-	-	1d	1d	1d	MONO

Pin connection

PIN No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52
CONNECTION	F1	F1	NP	NP	NX	NX	NX	P09	P08	P07	P06	P05	P04	P03	P02	P01	P10	P11	P12	P13	P14	P15	P16	NX	NX	NX	NX	NX	NX	NX	NX	NX	NX	NX	NX	P54	P53	P52	P51	P50	P49	P48	P47	P46	P45	P44	P43	P42	P41	NX	NX	F2	F2

NOTE 1) F1,F2 Filament
2) NP No pin
3) NX No extend pin
4) DL Datum Line
5) 1G~9G Grid
6) Field of vision is a minimum of 33.8° from the upper side, 23.9° from the lower side

Disassembly Procedures

■ Removal of the Metal Cover

1. Remove the six screws A fastening the metal cover to the rear panel of the main unit.
2. Remove the two screws B fastening the metal cover to the side panel of the main unit.
3. Spread both side of the metal cover outward and remove from the back panel by lifting upward.

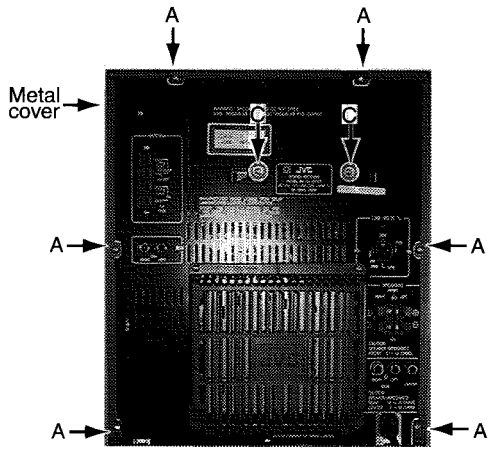


Fig 1

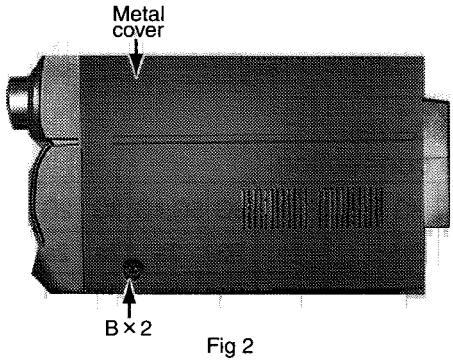


Fig 2

■ Removal of the CD Changer Mechanism Assembly

1. Remove the metal cover
2. Remove the two screws C fastening the CD changer mechanism assembly to the rear panel of the main unit. (See Fig.1)
3. Remove the two screws D fastening the CD changer mechanism assembly to the top panel of the main unit.
4. Disconnect the card wire connected from the CD changer mechanism assembly to connectors CN410 on the main amplifier board on the right side of the main unit.
5. Expand a rear panel outside, back of CD changer mechanism is lifted and detached.

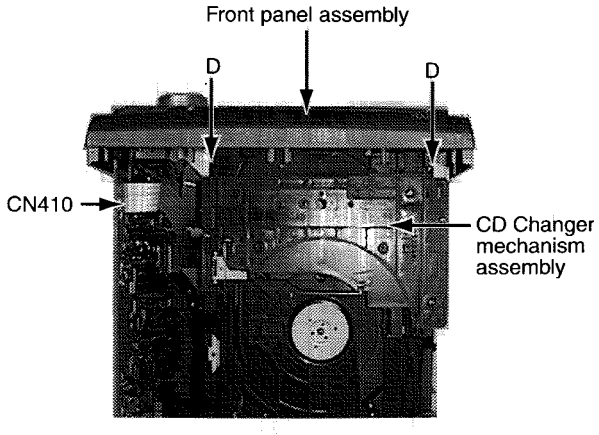


Fig 3

■ Removal of the Front Panel Assembly

1. Remove the metal cover.
2. Remove the CD changer mechanism assembly.
3. Remove the four screws E fastening the front panel assembly to the side of the main unit.
4. Use a screwdriver, etc.., to disengage clips ⓐ and ⓑ from the side panels of the main unit.
5. Disconnect the wires connected from the front panel assembly to connectors CN411, CN412 and CN413 on the main amplifier board.
6. Disconnect the wires CN915 and CN007 on the power amplifier board.
8. Disconnect connector CN414 on the Main P. C. Board
9. Remove the plastic rivet ⓒ fastening the main P. C. Board and front panel assembly.
10. Remove the front panel assembly.

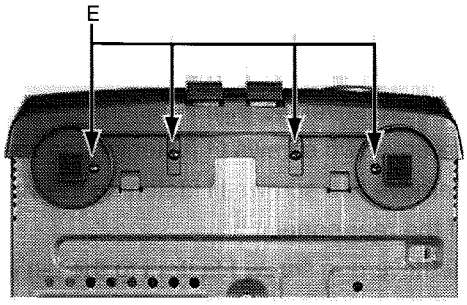


Fig 4

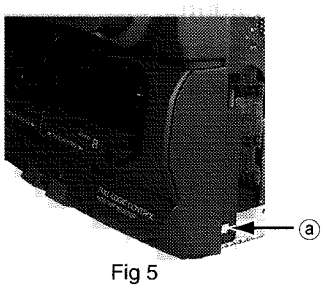


Fig 5

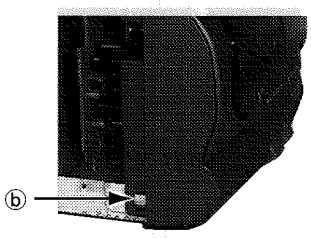


Fig 6

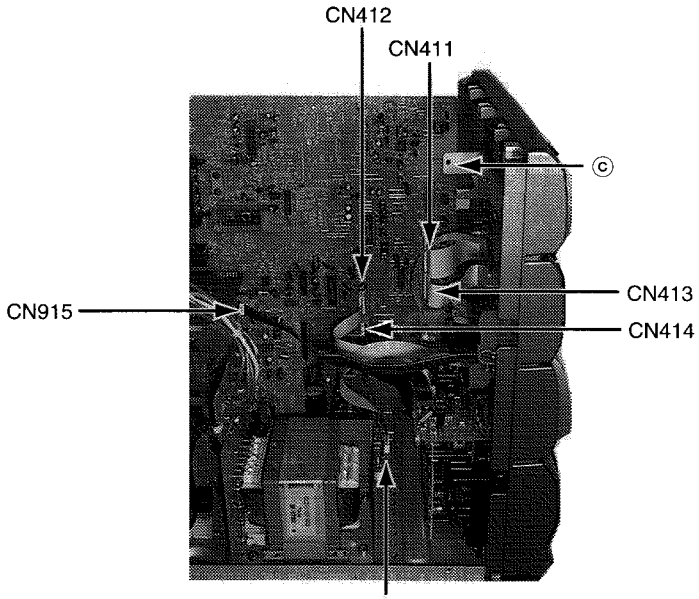


Fig 7

■ Removal of the Rear Panel Assembly

1. Remove the metal cover.
2. Remove the CD changer mechanism assembly.
3. Remove seven screws F fastening the rear panel.
4. Remove two screws G fastening the rear cover.
5. Remove two screws H fastening the voltage selector of the rear panel.
6. Remove one screw I fastening the pin jack of the rear panel.
7. Remove three screws J fastening the heat sink of the rear panel.
8. Use a screwdriver, etc., to disengage the two engagements bottom chassis clips ⓓ and ⓔ from the bottom part of the side panels of the rear panel assembly.

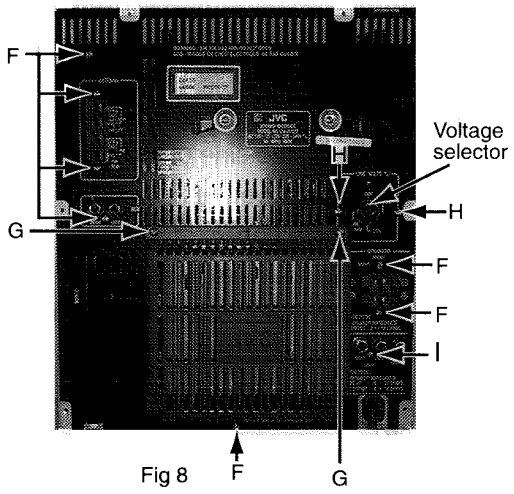


Fig 8

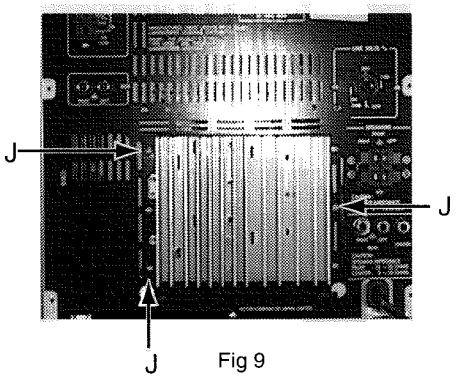


Fig 9

■ Removal of the Main Amplifier Board

1. Remove the rear panel.
2. Remove one screw K fastening the main amplifier board and bottom chassis to the side panel of the main unit.
3. Disconnect the main amplifier board CN415 and CN006 from the power amplifier board.

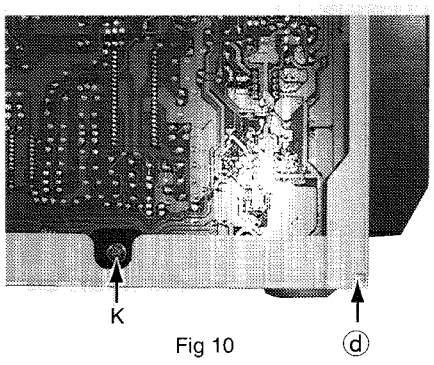


Fig 10

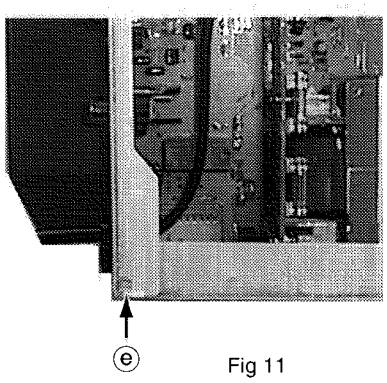


Fig 11

■ Remove of the Power Transformer

1. Remove the metal cover.
2. Remove the CD changer mechanism assembly.
3. Remove the rear panel .
4. Remove the four screws L fastening the power transformer.
5. Disconnect the connector CN111 and CN009 on the power amplifier board.

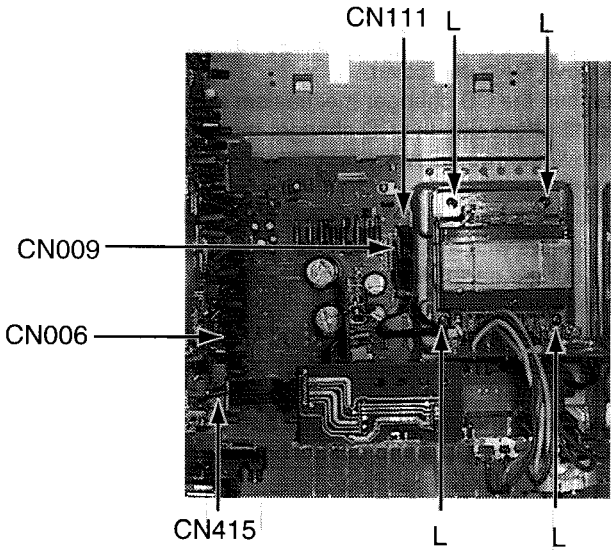


Fig 12

■ Removal of the Front Panel

1. Remove the metal cover.
2. Remove the CD changer mechanism assembly.
3. Remove the front panel assembly.
4. Remove the volume knob and nut on the front panel assembly.
5. Remove the six screws M fastening the stay bracket inside the front panel assembly.
6. Remove the eleven screws N fastening the system CPU board.
7. Disconnect the card wires protruding from connector CN803 on the system CPU board.

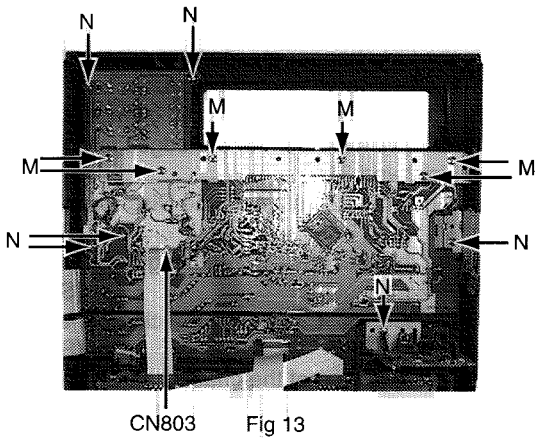


Fig 13

■Removal the of the Cassette Mechanism Assembly.

1.Remove the metal cover.
2.Remove the CD traverse mechanism assembly.
3.Remove the front panel assembly.
4.Remove the eight screws O fastening the cassette mechanism assembly to the inside of the front panel assembly.
5.Disconnect the card wires from connectors CN305 and CN306 on the head amplifier & mechanism control board.

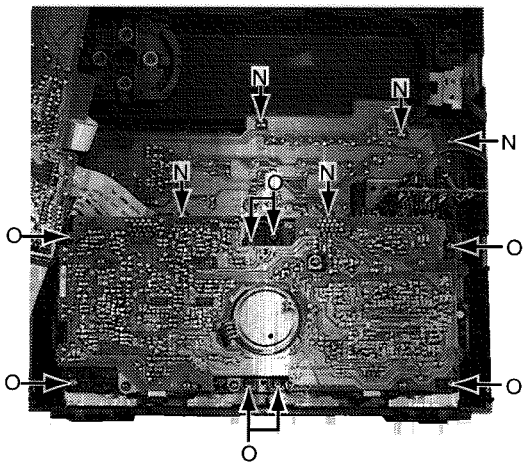


Fig 14

≪CD Changer Mechanism Type:VC3 Section≫

■Removing the CD Servo control board (See Fig.1)

1.Remove the metal cover.
2.Remove the CD changer mechanism assembly.
3.From bottom side the CD changer mechanism assembly, remove the two screws 1 retaining the CD servo control board.
4.Absorb the four soldered positions "M" of the right and left motors with a soldering absorber.
5.Pull out the earth wire on the CD changer mechanism assembly.
6.The two screws A is removed and C.B.holder is detached.
7.Disconnect the connector CN854 on the CD servo control board.
8.Disconnect the card wire CN601 and the connector CN801 on the CD servo control board.

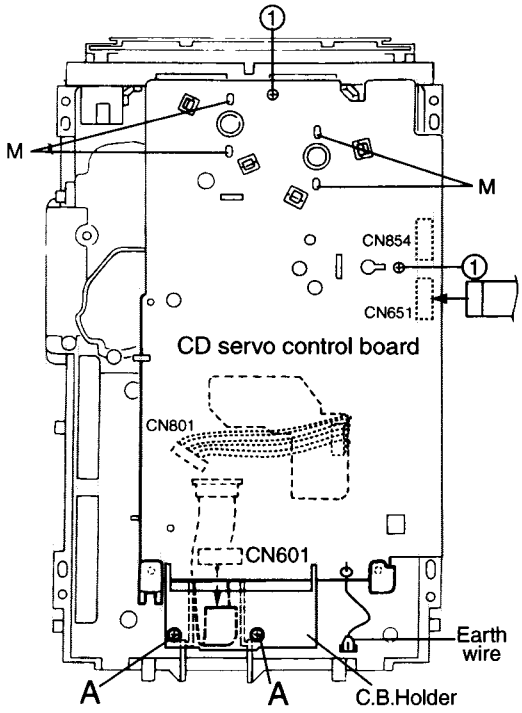


Fig.1

■Removing the CD tray assembly (See Fig.2~4)

1. Remove the front panel assembly.
2. Remove the CD changer mechanism assembly.
3. Remove the CD Servo control board.
4. From the T.bracket section "B" and clamper base section "C" , remove both of the edges fixing the rod(See Fig.2 and 3).
5. Remove the screw 2 retaining the Disc stopper (See Fig.3).
6. Remove the three screws 3 retaining the T.bracket (See Fig.3).
7. Remove the screws 4 retaining the clamper assembly (See Fig.3).
8. From the left side face of the chassis assembly, remove the one screw 5 retaining both of the return spring and lock lever(See Fig. 4).
9. By removing the pawl at the section "D" fixing the return spring, dismount the return spring(See Fig.4).
10. Remove the three lock levers(See Fig.4).

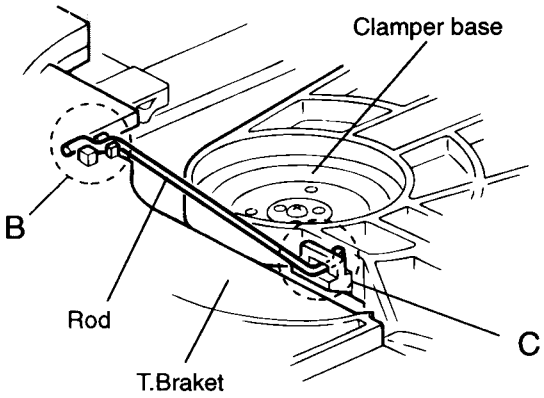


Fig.2

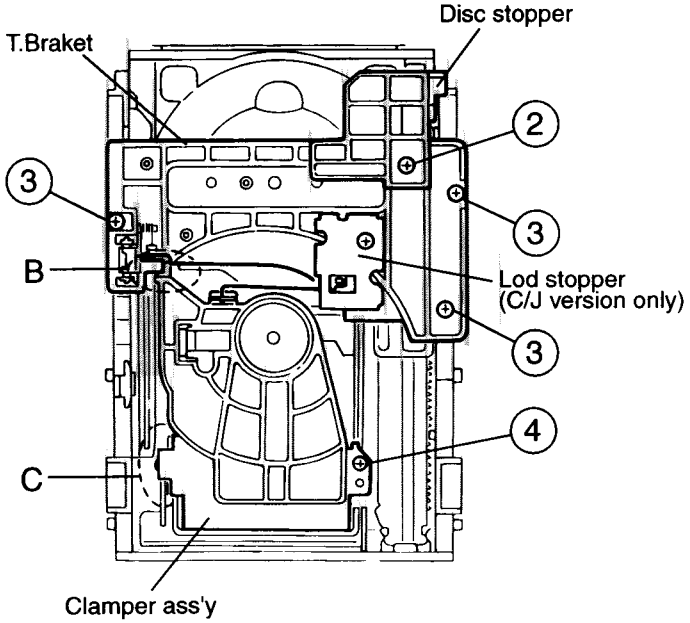


Fig.3

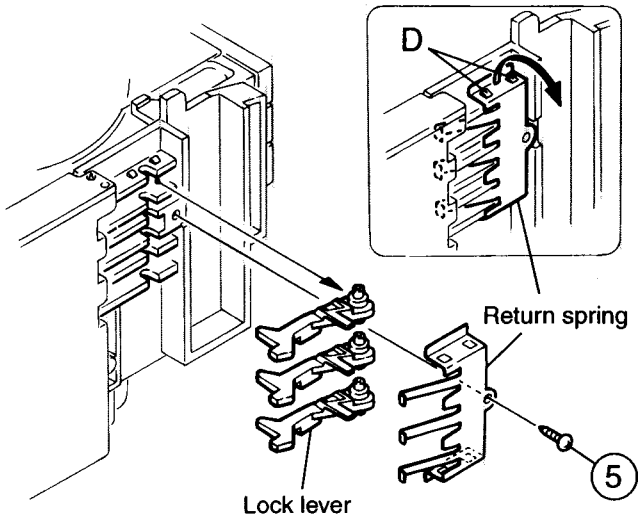


Fig.4

11. Check whether the lifter unit stopper has been caught into the hole at the section "E" of CD tray assembly as shown in Fig.5.
12. Make sure that the driver unit elevator is positioned as shown in Fig.6 from to the second or fifth hole on the left side face of the CD changer mechanism assembly.

[Caution] In case the driver unit elevator is not at above position, set the elevator to the position as shown in Fig.7 by manually turning the pulley gear as shown in Fig.8.

13. Manually turn the motor pulley in the clockwise direction until the lifter unit stopper is lowered from the section "E" of CD tray assembly(See Fig.8).
14. Pull out all of the three stages of CD tray assembly in the arrow direction "F" until these stages stop (See Fig.6).
15. At the position where the CD tray assembly has stopped, pull out the CD tray assembly while pressing the two pawls "G and G" on the back side of CD tray assembly(See Fig.9). In this case, it is easy to pull out the assembly when it is pulled out first from the stage CD tray assembly.

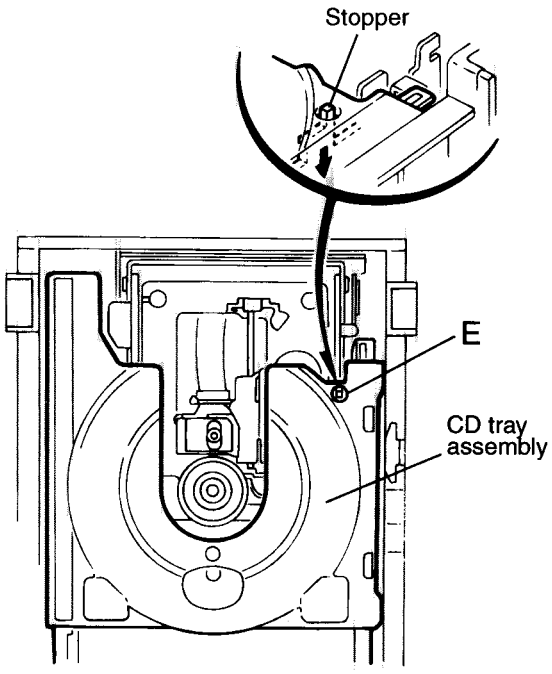


Fig.5

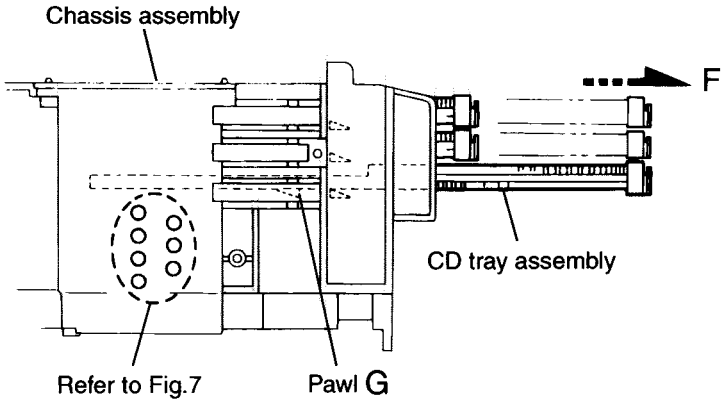


Fig.6

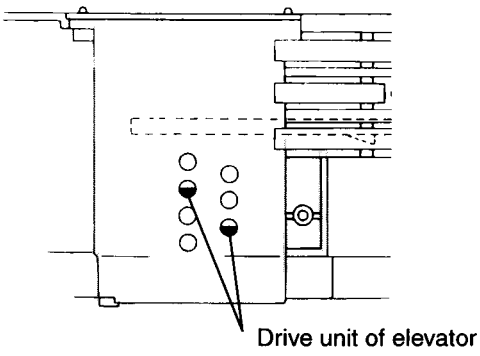


Fig.7

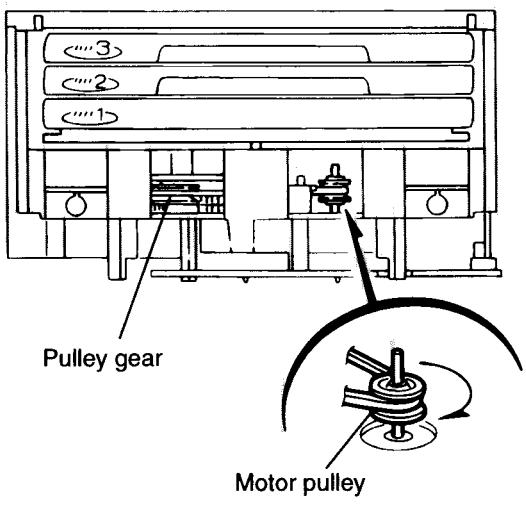


Fig.8

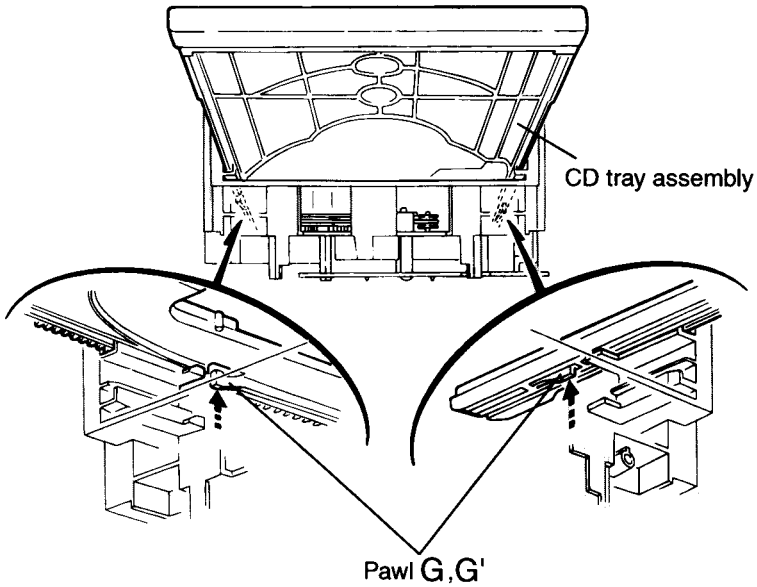


Fig.9

■Removing the CD loading mechanism assembly(See Fig.10)

1. While turning the cams R1 and R2 assembly in the arrow direction "H" , align the shaft "I" of the CD loading mechanism assembly to the position shown in
2. Fig.10.
   Remove the four screws 6 retaining the CD loading mechanism assembly.

■Removing the CD traverse mechanism (See Fig.11 and 12)

1. For dismounting only the CD traverse mechanism without removing the CD loading mechanism assembly, align the shaft "J" of the CD loading mechanism assembly to the position shown Fig.11 while turning the cam R1 and R2 assembly in the arrow direction "K" .
2. By raising the CD loading mechanism assembly in the arrow direction "L" , remove the assembly from the lifter unit

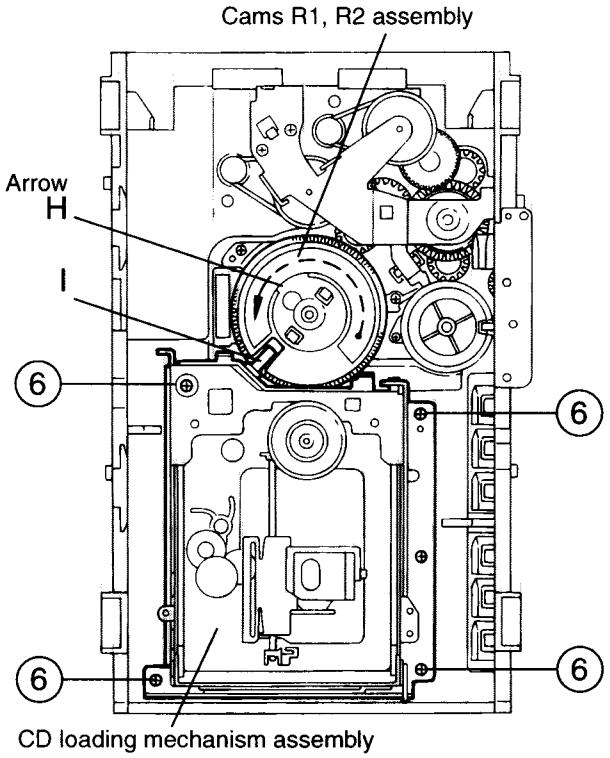


Fig.10

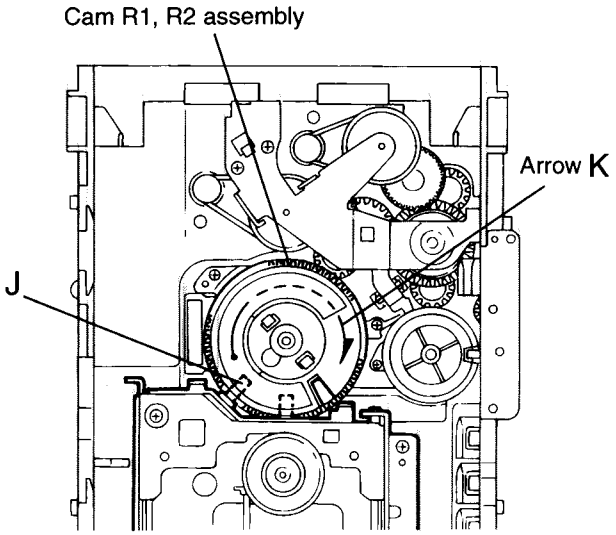


Fig.11

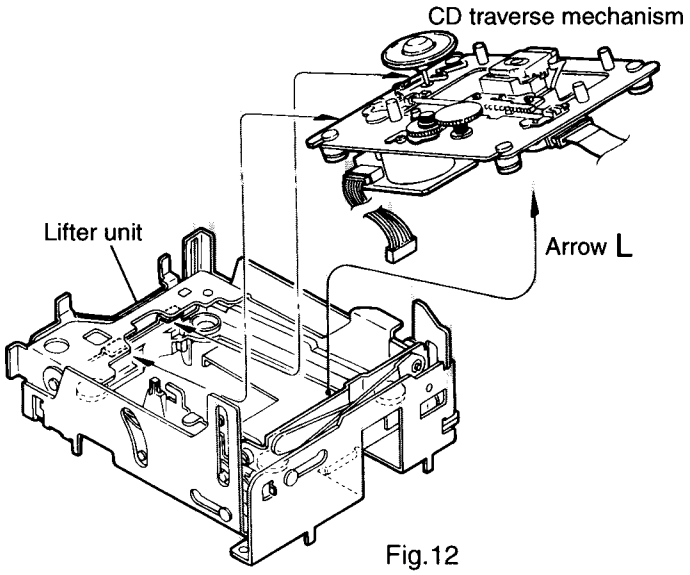


Fig.12

■Removing the CD pick unit (See Fig.13)

1. Move the cam gear in the arrow direction a . Then, the CD pickup unit will be moved in the arrow direction b .
2. According to the above step, shift the CD pickup unit to the center position.
3. While pressing the stopper retaining the shaft in the arrow direction c , pull out the shaft in the arrow direction d .
4. After dismounting the shaft from the CD pickup unit, remove the CD pickup unit

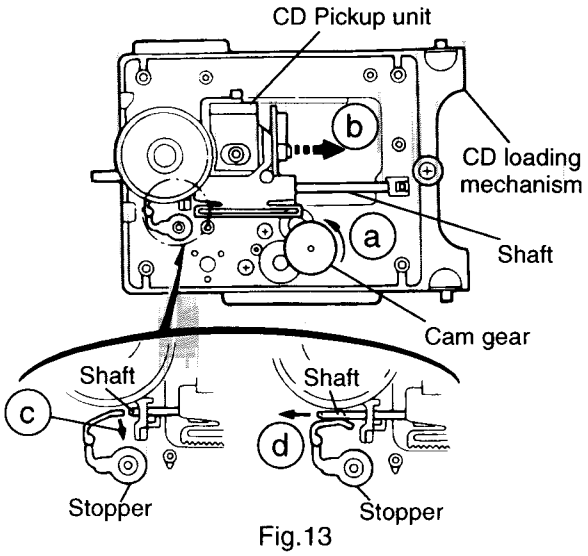


Fig.13

■Removing the cam unit
(See Fig.14 ~17)

1. Remove the CD loading mechanism assembly.
2. While turning the cam gear L, align the pawl "N" position of the drive unit to the notch position(Fig.16) on the cam gear L.
3. Pull out the drive unit and cylinder gear(See Fig.17).
4. While turning the cam gear L, align the pawl "O" position of the select lever to the notch position(Fig.18) on the cam gear L.
5. Remove the four screws 9 retaining the cam unit(cam gear L and cams R1/R2 assembly)(See Fig.18).

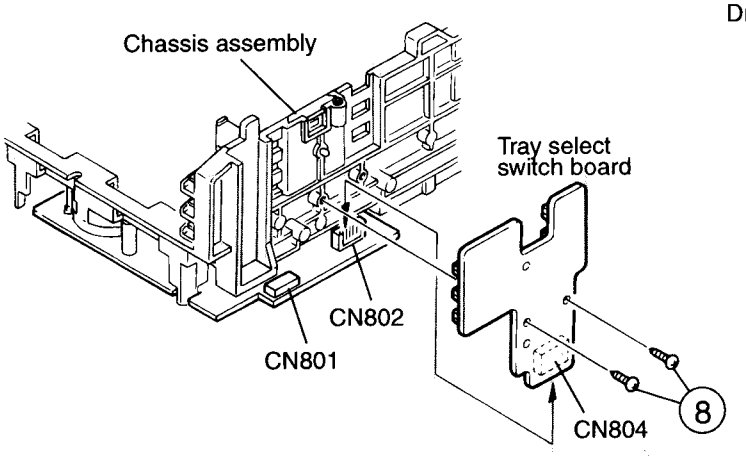


Fig.14

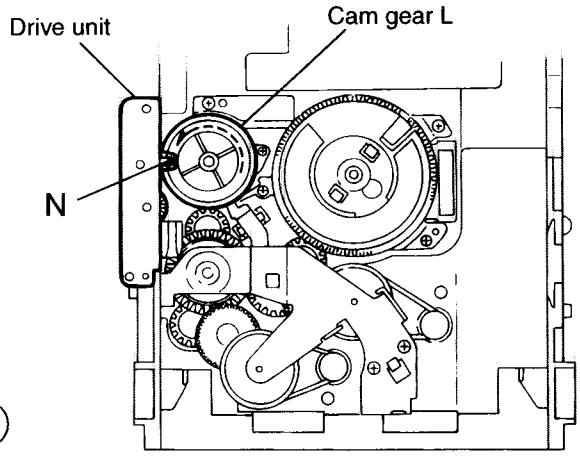


Fig.15

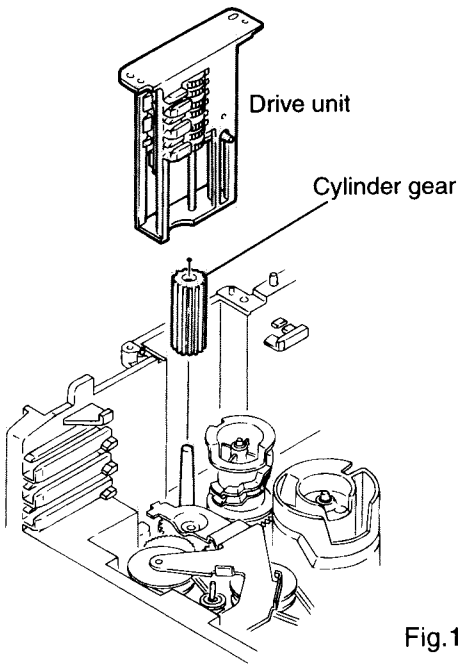


Fig.16

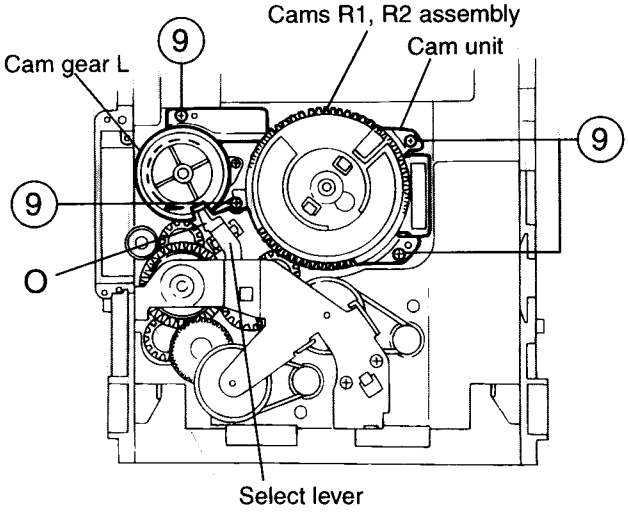


Fig.17

■Removing the actuator motor and belt (See Fig.18~21)

1. Remove the two screws 10 retaining the gear bracket (See Fig.19).
2. While pressing the pawl "P" fixing the gear bracket in the arrow direction, remove the gear bracket (See Fig.19).
3. From the notch "Q section" on the chassis assembly fixing the edge of gear bracket, remove and take out the gear bracket(See Fig. 20).
4. Remove the belts respectively from the right and left actuator motor pulleys and pulley gears(See Fig. 19).
5. After turning over the chassis assembly, remove the actuator motor while spreading the four pawls "R" fixing the right and left actuator motors in the arrow direction(See Fig. 21).

[Note] When the chassis assembly is turned over under the conditions wherein the gear bracket and belt have been removed, then the pulley gear as well as the gear, etc. constituting the gear unit can possibly be separated to pieces. In such a case, assemble these parts by referring to the assembly and configuration diagram in Fig. 22.

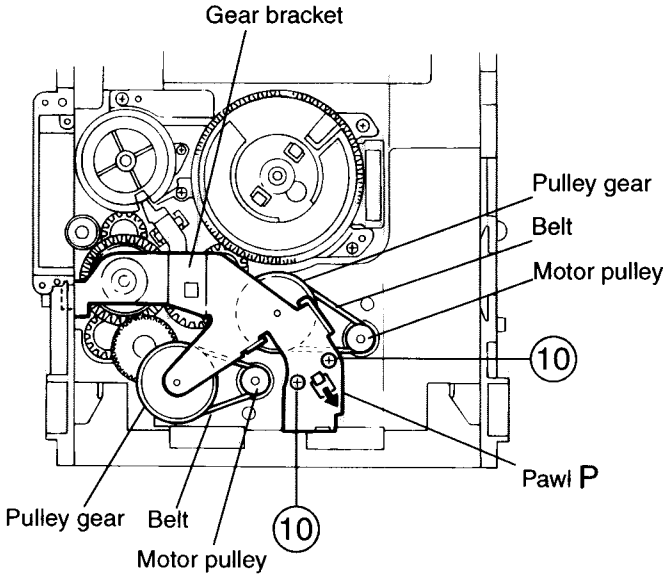


Fig.18

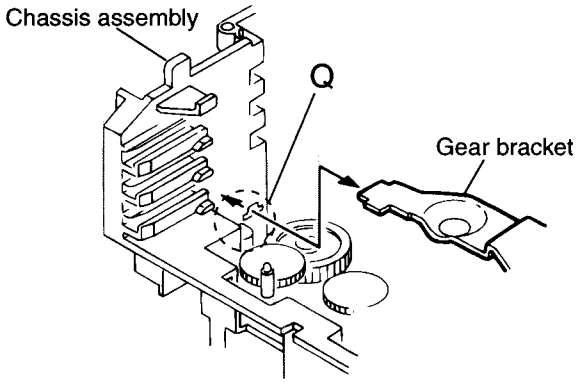


Fig.19

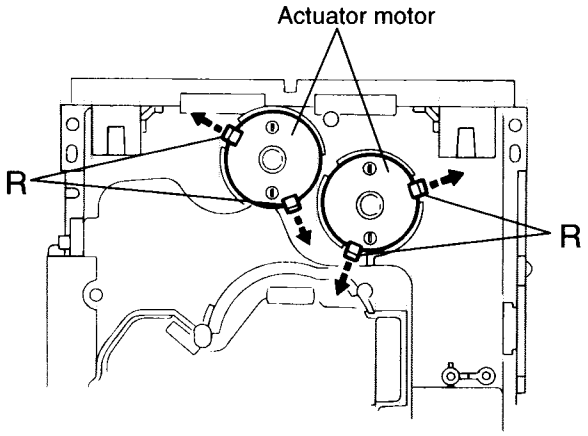


Fig.20

Assembly and Configuration Diagram

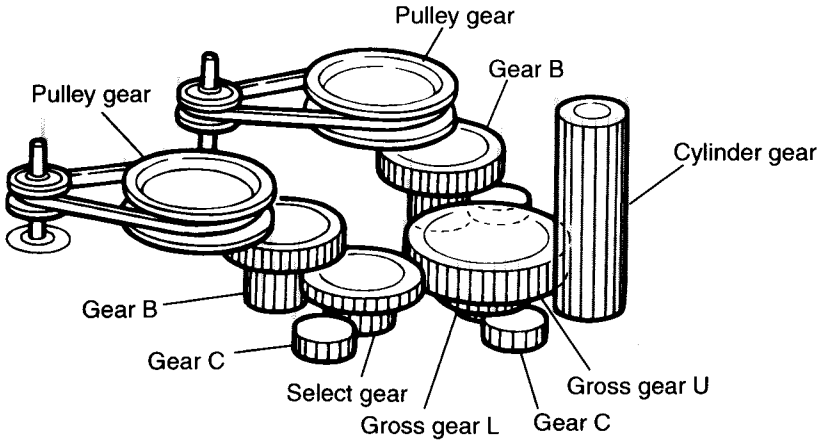


Fig.21

■Removing the cams R1/R2 assembly and cam gear L(See Fig.22)

1. Remove the slit washer fixing the cams R1 and R2 assembly.
2. By removing the two pawls "S" fixing the cam R1, separate R2 from R1.
3. Remove the slit washer fixing the cam gear L.
4. Pull out the cam gear L from the C.G. base assembly.

■Removing the C.G. base assembly (See Fig.22 and 23)

Remove the three screws 11 retaining the C.G. base assembly.

[Caution] To reassemble the cylinder gear, etc.with the cam unit (cam gear and cans R1/R2 assembly), gear unit and drive unit, align the position of the pawl "N" on the drive unit to that o f the notch on the cam gear L. Then, make sure that the gear unit is engaged by turning the cam gear L (See Fig. 24).

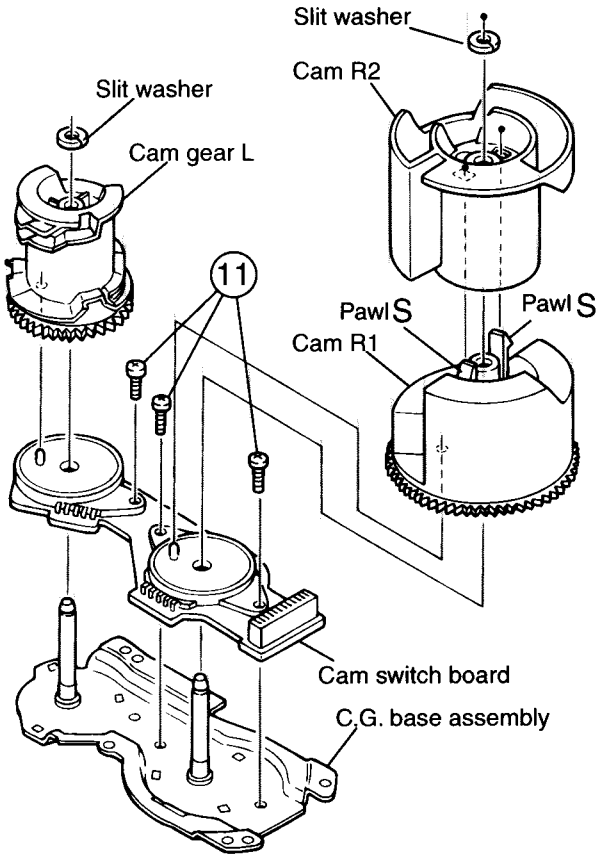


Fig.22

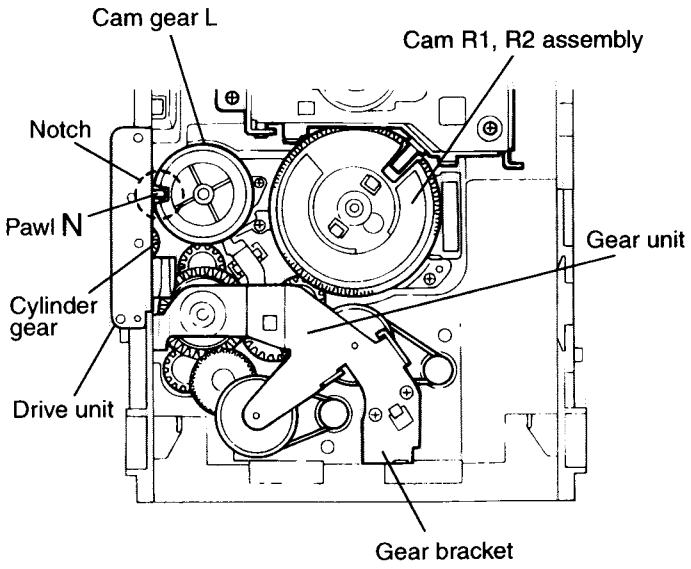
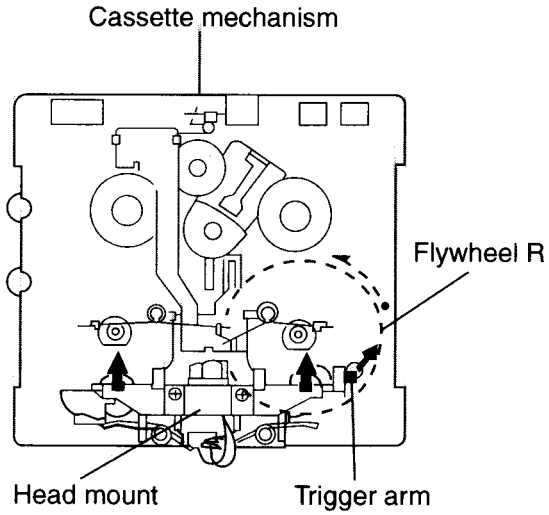


Fig.23

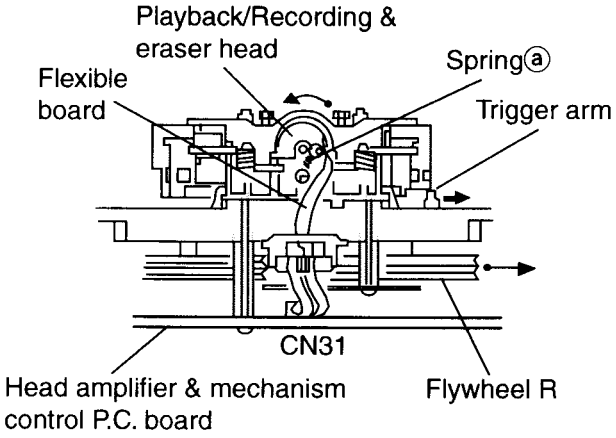
< Cassette Mechanism Section >

■ Removing the Playback,Recording and Eraser Heads

1. While shifting the trigger arms seen on the right side of the head mount in the arrow direction,turn the flywheel R in counterclockwise direction until the head mount has gone out with a click (See Fig 1).
2. When the flywheel R is rotated in counterclockwise direction, the playback head will be turned in counterclockwise direction from the position in Fig 2 to that in Fig 3.
3. At this position, disconnect the flexible P.C.board (outgoing from the playback head) from the connector CN301 on the head amp. and mechanism control P.C. board.
4. After dismounting the FPC holder,remove the flexible P.C.board.
5. Remove the flexible P.C.board from the chassis base.
6. Remove the spring ⓐ from behind the playback head.
7. Loosen the reversing azimuth screw retaining the playback head.
8. Take out the playback head from the front of the head mount.
9. The recording and eraser heads should also be removed similarly according to Steps 1~8 above.



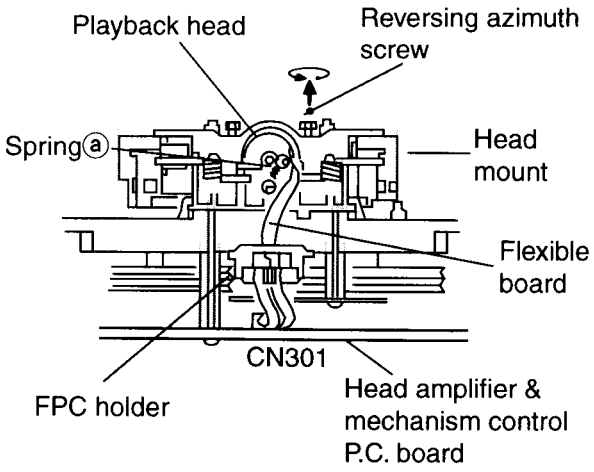
(Mechanism A side)



(Mechanism A side)

● Reassembling the Playback, Recording and Eraser Heads

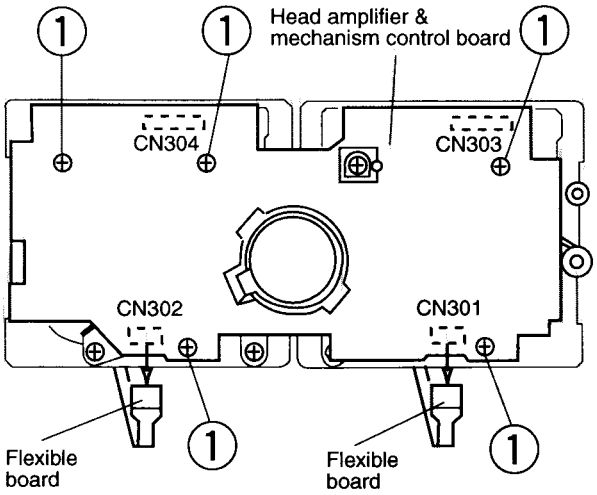
1. Reassemble the playback head from the front of the head mount to the position as shown in Fig 3.
2. Fix the reversing azimuth screw.
3. Set the spring a from behind the playback head.
4. Attach the flexible P.C.board to the chassis base, and fix it with the FPC holder as shown in Fig 3.
5. The recording and eraser heads should also be reassembled similarly according to Steps 1~4 above.



(Mechanism B side)

■Removing the head Amp.and Mechanism Control P.C.Board (See Fig 4)

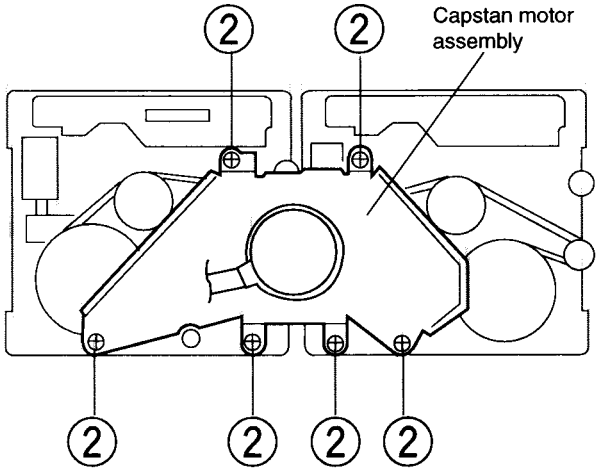
1.Remove the cassette mechanism assembly.
2.After turning over the cassette mechanism assembly,remove the five screws ① retaining the head amp. and mechanism control P.C. board
3.Disconnect the connectors CN303 and CN304 on the P.C.Board and the connectors CN1 on both the right and left side reel pulse P.C.Boards.
4.When necessary, remove the 4pin parallel wire soldered to the main motor

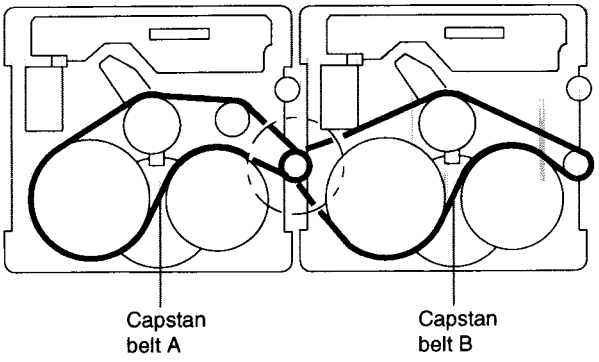


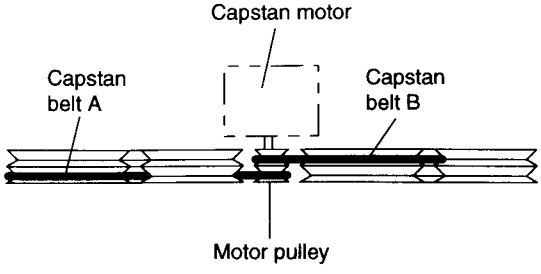
■Removing the Capstan Motor Assembly

1.Remove the six screws ② retaining capstan motor assembly (See Fig 5).
2.While raising the capstan motor, remove the capstan belts A and B respectively from the motor pulley (See Fig 6).

Caution 1: Be sure to handle the capstan belts so carefully that these belts will not be stained by grease and other foreign matter. Moreover, these belts should be hand while referring to the capstan belt hanging method.

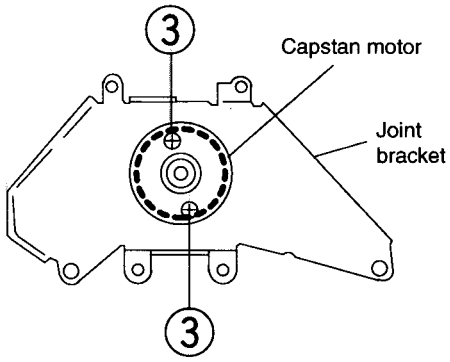






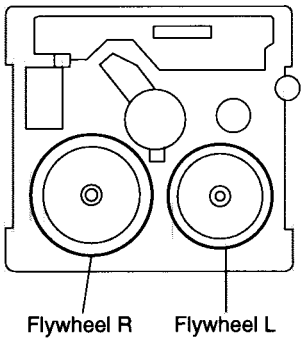
■Removing the Capstan Motor (See Fig 8)

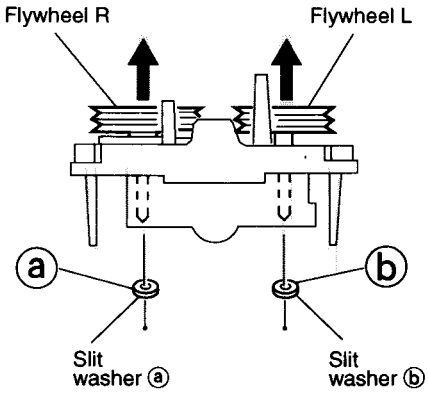
From the joint bracket, remove the two screws③ retaining the capstan motor.



■Removing the Flywheel (See Fig 9.10)

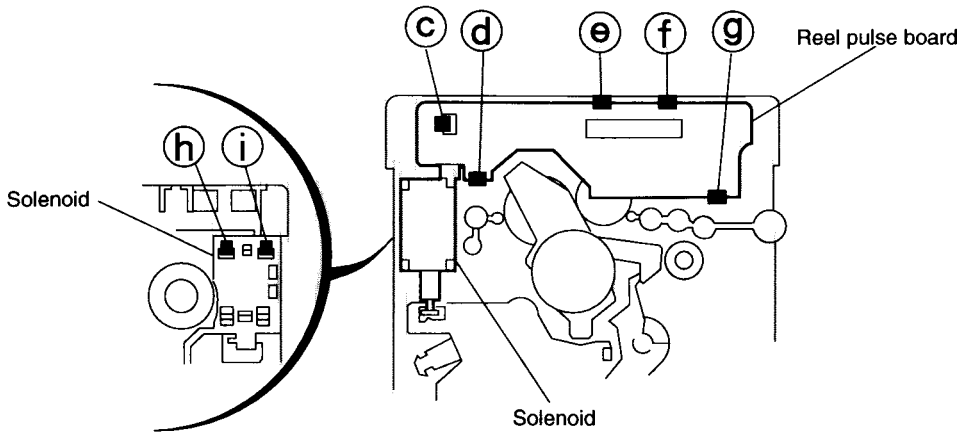
1. Remove the head amp. and mechanism control P.C.Board.
2. Remove the capstan motor assembly.
3. After turning over the cassette mechanism, remove the slit washers ⓐ andⓑ fixing the capstan shafts R and L, and pull out the flywheels R and L respectively from behind the cassette mechanism.



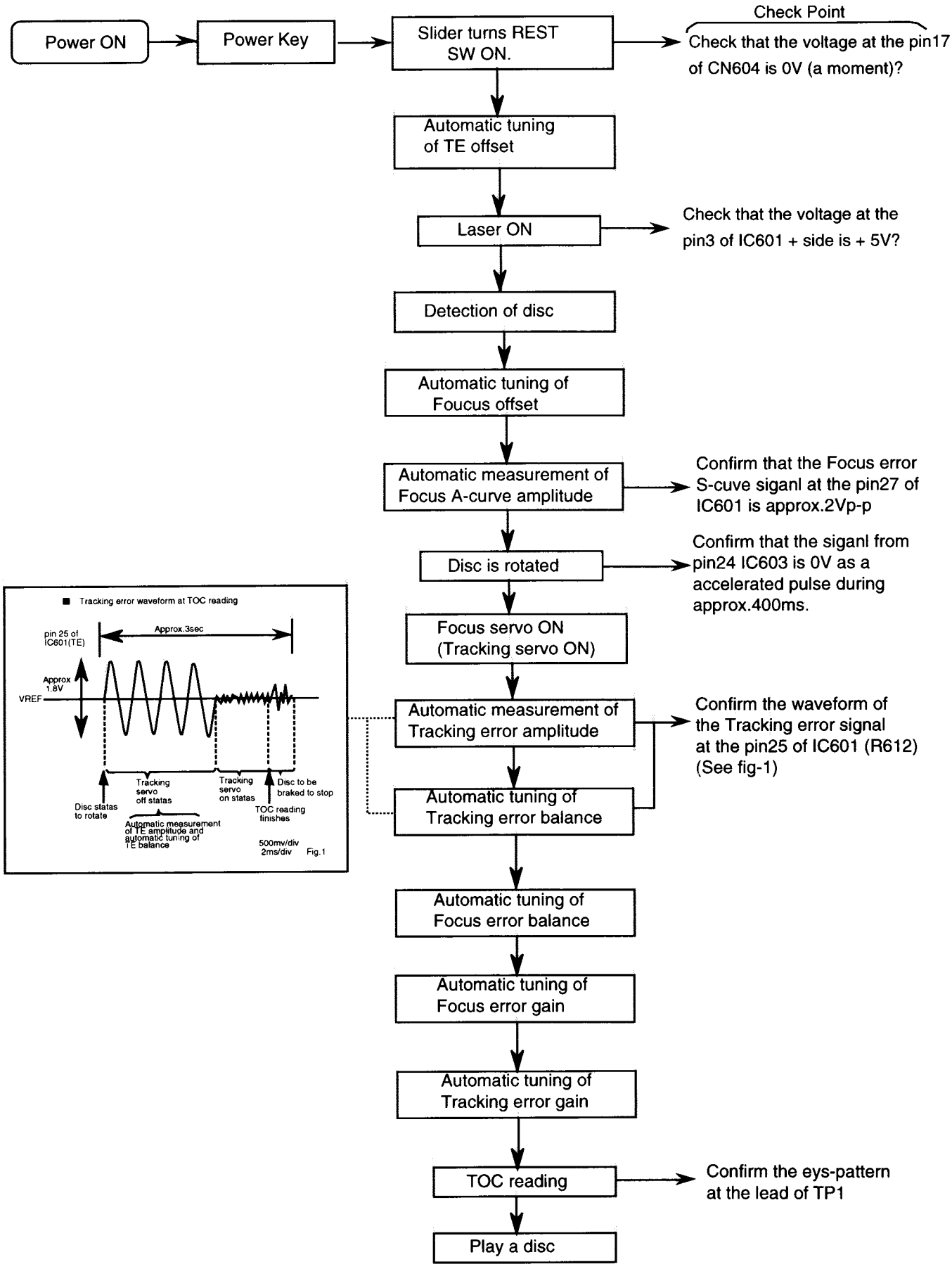


■Removing the Reel Pulse P.C.Board and Solenoid (See Fig 11)

1. Remove the five pawls (ⓒ ⓓ ⓔ ⓕ ⓖ) retaining the reel pulse P.C.Board.
2. From the surface of the reel pulse P.C.Board parts, remove the two pawls ⓗ and ⓘ retaining the solenoid.



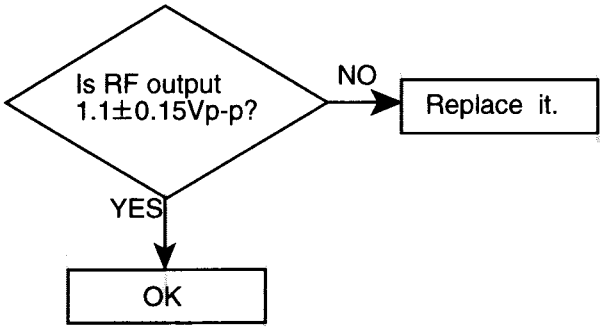
Flow of Functional Operation Until TOC Read


Power ON
Power Key
Slider turns REST SW ON.
Check Point
Check that the voltage at the pin17 of CN604 is 0V (a moment)?
Automatic tuning of TE offset
Laser ON
Check that the voltage at the pin3 of IC601 + side is + 5V?
Detection of disc
Automatic tuning of Foucus offset
Automatic measurement of Focus A-curve amplitude
Confirm that the Focus error S-cuve siganl at the pin27 of IC601 is approx.2Vp-p
Disc is rotated
Confirm that the siganl from pin24 IC603 is 0V as a accelerated pulse during approx.400ms.
Focus servo ON (Tracking servo ON)
Automatic measurement of Tracking error amplitude
Confirm the waveform of the Tracking error signal at the pin25 of IC601 (R612) (See fig-1)
Automatic tuning of Tracking error balance
Automatic tuning of Focus error balance
Automatic tuning of Focus error gain
Automatic tuning of Tracking error gain
TOC reading
Confirm the eys-pattern at the lead of TP1
Play a disc
Tracking error waveform at TOC reading
pin 25 of IC601(TE)
Approx.3sec
Approx 1.8V
VREF
Tracking servo off statas
Tracking servo on statas
Disc to be braked to stop
Disc statas to rotate
TOC reading finishes
Automatic measurement of TE amplitude and automatic tuning of TE balance
500mv/div
2ms/div
Fig.1

Maintenance of Laser Pickup

(1) Cleaning the pick up lens
Befor you replace the pick up, please try to clean the lens with a alcohol soaked cotton swab.

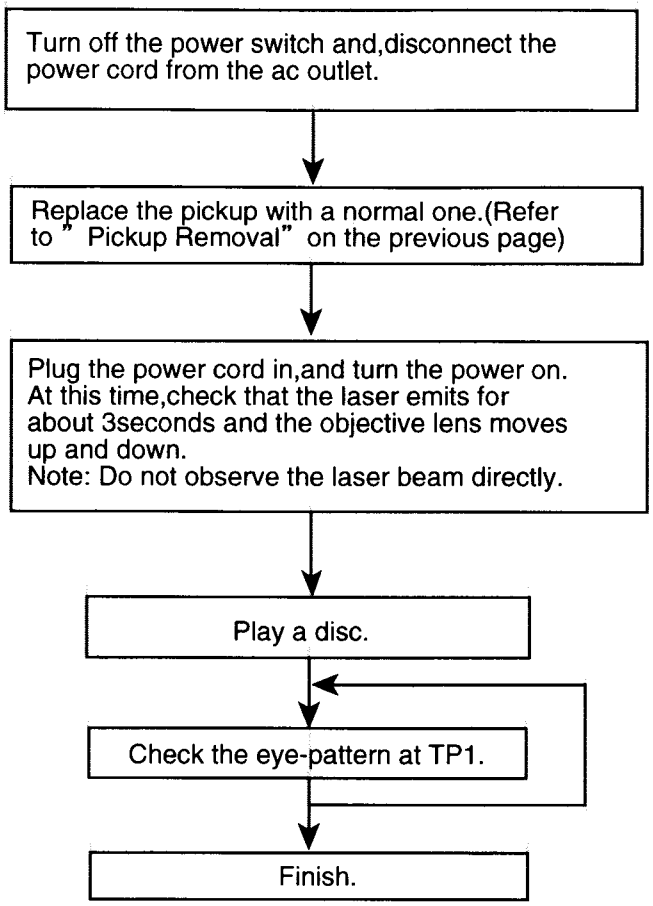
(2) Life of the laser diode (Fig.1)
When the life of the laser diode has expired, the following symptoms wil appear.
(1) The level of RF output (EFM output:amplitude of eye pattern) will below.



(Fig.1)

(3) Semi-fixed resistor on the APC PC board
The semi-fixed resistor on the APC printed circuit board which is attached to the pickup is used to adjust the laser power.Since this adjustment should be performed to match the characteristics of the whole optical block, do not touch the semi-fixed resistor.
If the laser power is lower than the specified value,the laser diode is almost worn out, and the laser pickup should be replaced.
If the semi-fixed resistor is adjusted while the pickup is functioning normally,the laser pickup may be damaged due to excessive current.

Replacement of Laser Pickup


Turn off the power switch and,disconnect the power cord from the ac outlet.
Replace the pickup with a normal one.(Refer to " Pickup Removal" on the previous page)
Plug the power cord in,and turn the power on.
At this time,check that the laser emits for about 3seconds and the objective lens moves up and down.
Note: Do not observe the laser beam directly.
Play a disc.
Check the eye-pattern at TP1.
Finish.

Adjustment Procedures

■ Measurement Instruments Required for Adjustment

1. Low frequency oscillator,
   This oscillator should have a capacity to output 0dBs to 600Ω at an oscillation frequency of 50Hz-20kHz.
2. Attenuator impedance : 600Ω
3. Electronic voltmeter
4. Frequency counter
5. Wow flutter meter
6. Test tape
   VT712 : For Tape speed and wow flutter (3kHz)
   VT724 : For Reference level (1kHz)
   TMT7036 : For Head angle(10kHz),Play back frequency characteristics(1kHz),and dubbing frequency characteristics(63,1,10kHz)
   Because of frequency-mixed tape with 63,1k,10k and 14kHz(250nWb/m -24dB).
   Use this tape together with a filter.
7. Blank tape
   TAPE Ⅰ : AC-225, TAPE Ⅱ : AC-514
8. Torque gauge : For play and back tension
   Forward ; TW2111A, Reverse ; TW2121A
   Fast Forward and Rewind ; TW2231A
9. Test disc
   : CTS-1000(12cm),GRG-1211(8cm)
10. Jitter meter

■ Measurement Conditions

Power supply voltage : AC110-240V(50Hz) for U,A group
: 220V(60Hz) for UP
: 120V(60Hz) for J,C
Reference output : Speaker 0.775V/6 Ω
: Headphone 0.0775V/32 Ω
Measurement
output terminal : Speaker out
:TP101(Mesuring for TUNER/DECK/CD)

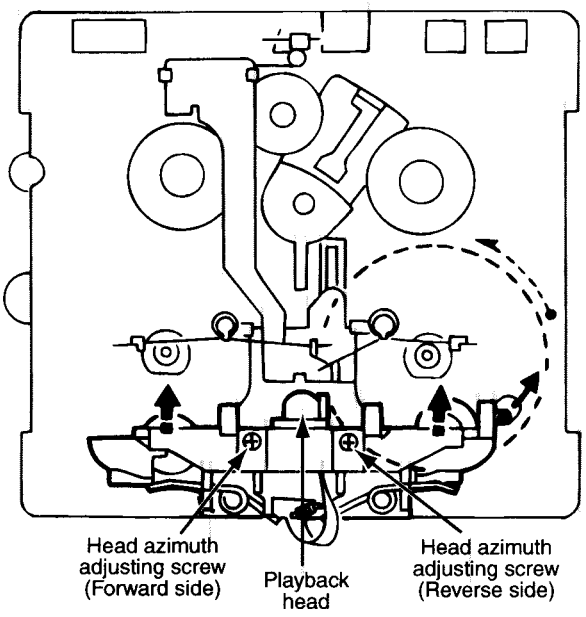
Radio input signal
AM modulation frequency : 400Hz
Modulation factor : 30%
FM modulation frequency : 400Hz
Frequency displacement : 22.5kHz

Standard measurement positions of volume and switch
Sound mode : Off
SA-Bass : Off
Main VOL. : 0 Minimum
KARAOKE : OFF (U,A group only)
ECHO : OFF (U,A group omly)
Travers mecha set position : Disc 1

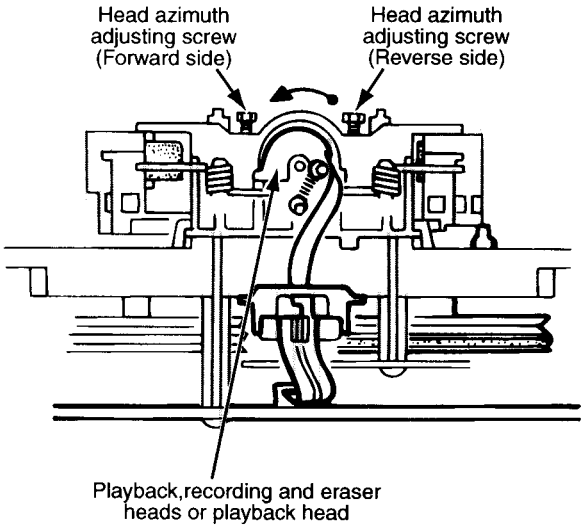
Precautions for Measurement
1. Apply 30pF and 33kΩ to the IF sweeper output side and 0.082μF and 100kΩ in series to the sweeper input side.
2. The IF sweeper output level should be made as low as possible within the adjustable range.
3. Since the IF sweeper is a fixed device, there is no need to adjust this sweeper.
4. Since a ceramic oscillator is used, there is no need to perform any MPX adjustment.
5. Since a fixed coil is used, there is no need to adjust the FM tracking.
6. The input and output earth systems are separated. In case of simultaneously measuring the voltage in both of the input and output systems with an electronic voltmeter for two channels, therefore, the earth should be connected particularly.
7. In the case of BTL connection amplifier, the minus terminal of speaker is not for earthing. Therefore, be sure not to connect any other earth terminal to this terminal. This system is of an OTL system.

■Arrangement of Adjusting Positions

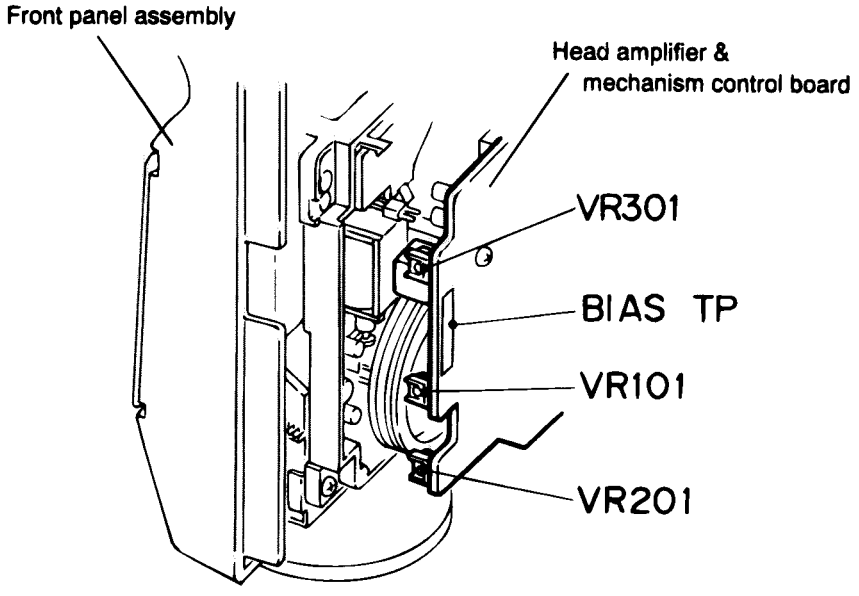
Cassette mechanism section (Mechanism A section)



Cassette mechanism section (Back side)



Cassette Mechanism Unit Section



■Tape Recorder Section

Items	Measurement conditions	Measurement method	Standard values	Adjusting positions
Confirmation of head angle	Test tape :TMT7036(10kHz) Measurement output terminal :Speaker terminal Speaker R (Load resistor:3Ω) :Headphone terminal	1.Playback the test tape TMT7036(10kHz). 2.With the playback mechanism or recording & playback mechanism, adjust the head azimuth screw so that the forward and reverse output levels become maximum.After adjustment,lock the head azimuth at least by half a turn. 3.In either case,this adjustment should be performed in both the forward and reverse directions with the head azimuth screw.	Maximum output	Adjust the head azimuth screw only when the head has been changed.
Confirmation of tape speed	Test tape :VTT712(3kHz) or TMT7036(3kHz) Measurement output terminal :Headphone terminal	<Constant speed> Adjust VR301 so that the frequency counter reading becomes 3,010Hz±15Hz when playing back the test tape VTT712(3kHz)with the playback mechanism or playback and recording mechanism after ending forward winding of the tape.	Tape speed of decks (A and B) :3,010Hz ±15Hz	VR301

■Reference Values for Confirmation items

Items	Measurement conditions	Measurement method	Standard values	Adjusting positions
Double tape speed	Test tape :TMT7036(10kHz) Measurement output terminal :Speaker terminal Speaker R (Load resistance:3Ω) measurement output terminal :Headphone terminal	After setting to the double speed motor, confirm that the frequency counter reading becomes 4,800+400/-300Hz when the test tape VTT712 (3kHz) has been play back with the playback mechanism.	4,800+400/-300Hz	Playback mechanism side
Difference between the forward and reverse speed. P.mecha and R/P mecha speed		When the test tape VTT712(3kHz) has been played back with the playback mechanism or recording and playback mechanism at the beginning of forward winding, the frequency counter reading of the difference between both of the mechanisms should be 6.0Hz or less.	60Hz or less	Both the playback and recording & playback mechanism
Wow & flutter	Test tape :TMT7036(10kHz) Measurement output terminal :Headphone terminal	When the test tape VTT712(3kHz) has been played back with the playback mechanism or recording and playback mechanism at the beginning of forward winding the frequency counter reading of wow& flutter should be 0.25% or less(WRMS).	0.25% or less (WRMS)	Both the playback and recording & playback mechanism

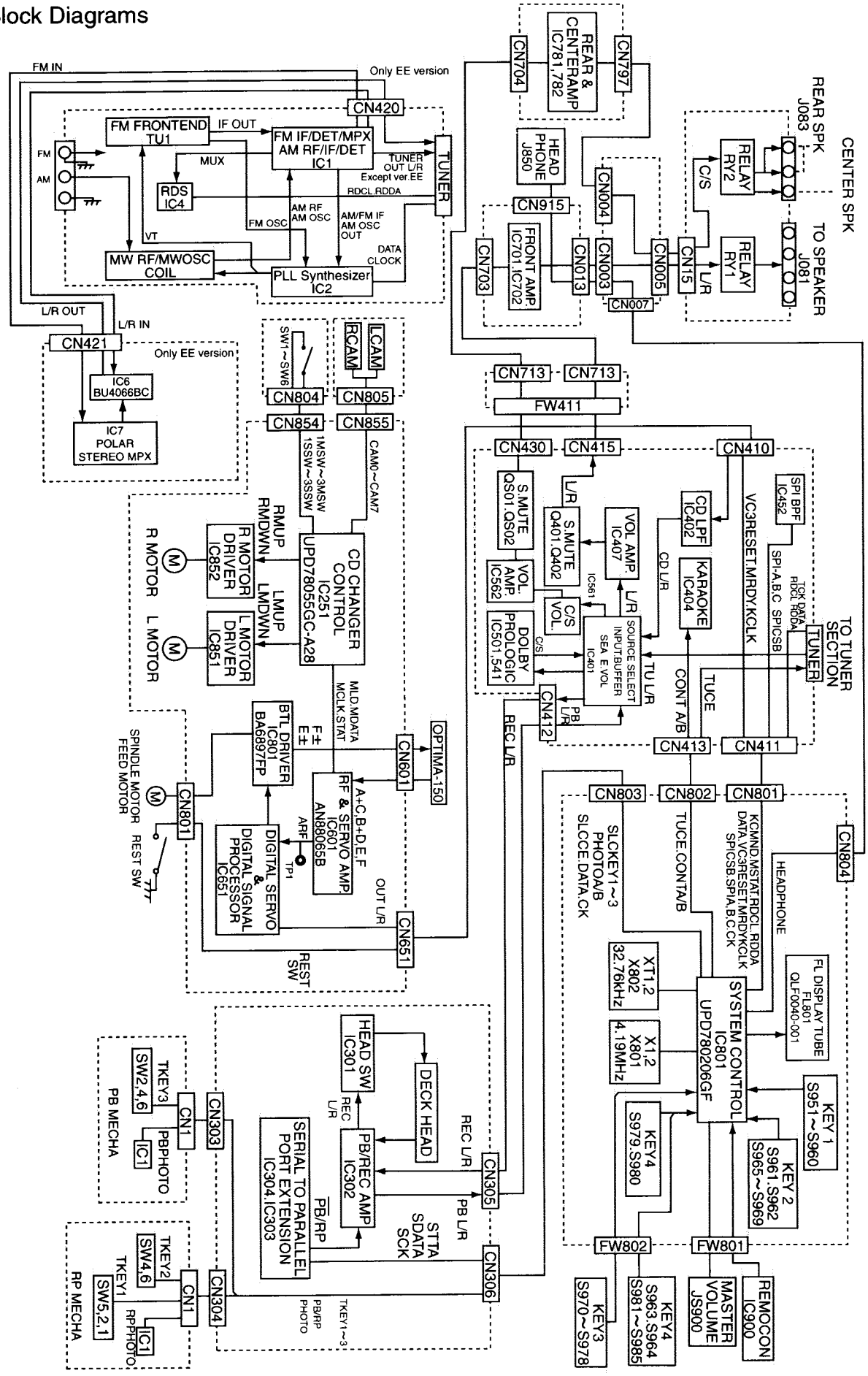
■Electrical Performance

Items	Measurement conditions	Measurement method	Standard values	Adjusting positions
Adjustment of recording bias current (Reference value)	*Mode : Forward or reverse mode *Recording mode *Test tape :AC-514 and AC-225 Measurement output terminal :Both recording and headphone terminals	1.With the recording and playback mechanism, load the test tapes(AC-514 to TYP Ⅱ and AC-225 to TYP Ⅰ),and set the mechanism to the recording and pausing conditions in advance. 2.After connecting 100Ω in series to the recorder head,measure the bias current with a valve voltmeter at both of the terminals. 3.After resetting the [PAUSE] mode,start recording. At this time,adjust VR101 for LcH and VR201 for RcH so that the recording bias current values become 4.0μA (TYP Ⅰ) and 4.20μA(TYP Ⅱ).	AC-225 :4.20μA AC-514 :4.0μA	LcH :VR101 RcH :VR201
Adjustment of recording and playback frequency characteristics	Reference frequency :1kHz and 10kHz (REF:-20dB) Test tape :TYP Ⅱ AC-514 Measurement input terminal :OSC IN	1.With the recording and playback mechanism,load the test tape(AC-514 to TYP Ⅱ),and set the mechanism to the recording and pausing condition in advance. 2.While repetitively inputting the reference frequency signal of 1kHz and 10kHz from OSC IN, record and playback the test tape. 3.While recording and playing back the test tape in TYP Ⅱ,adjust VR101 for LcH and VR201 for RcH so that the output deviation between 1kHz and 10kHz becomes -1dB±2dB.	Output deviation between 1kHz and 10kH :-1dB±2dB	LcH :VR101 RcH :VR201

■Reference Values for Electrical Function Confirmation Items

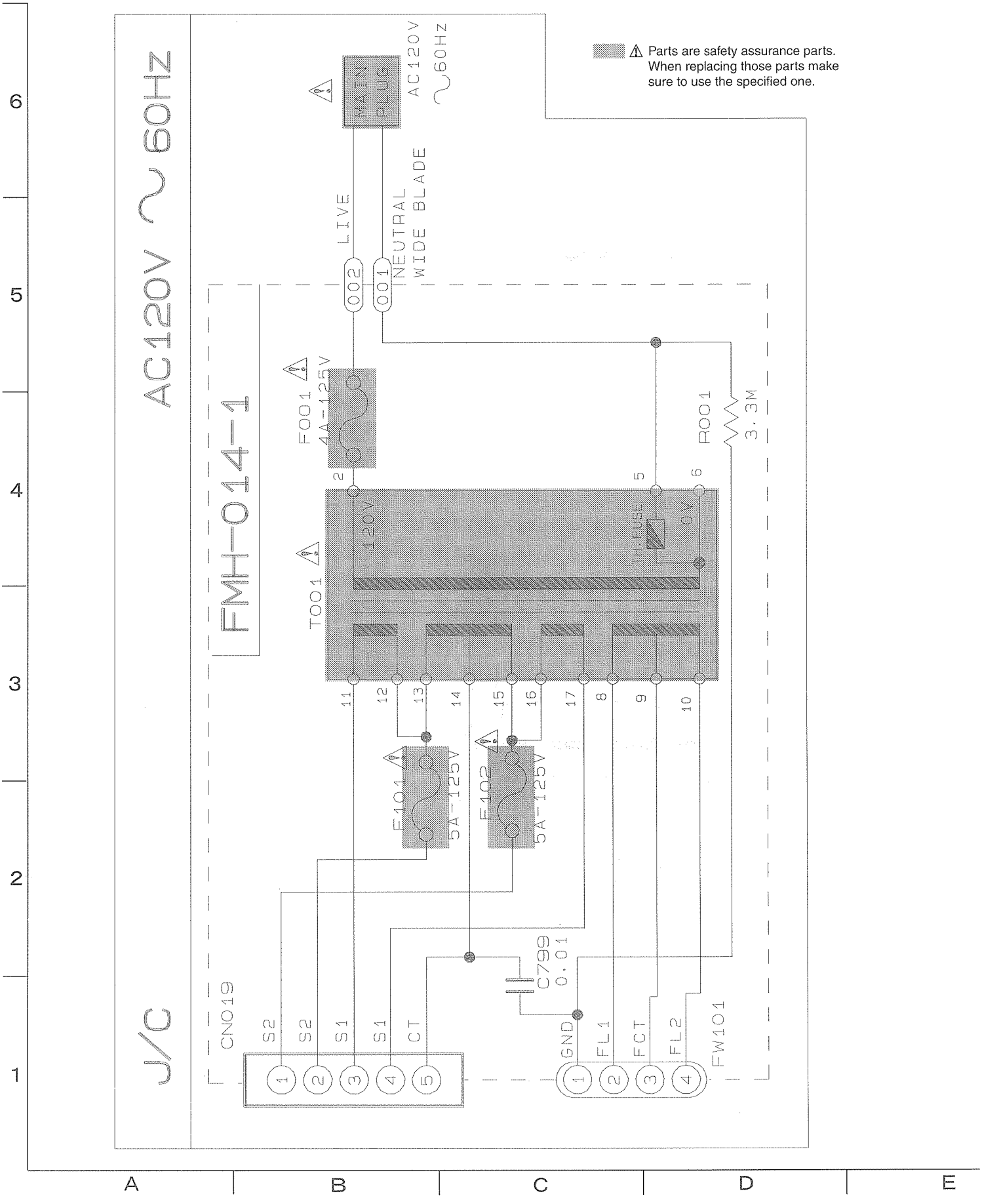
Items	Measurement conditions	Measurement method	Standard values	Adjusting positions
Recording bias frequency	*Recording and playback side forward or reverse *Test tape :TYP Ⅱ AC-514 *Measurement terminal BIAS TP on P.C.board	1.While changing over to and from BIAS 1 and 2, confirm that the frequency is changed. 2.With the recording and playback mechanism. load the test tape (AC-514 to TYP Ⅱ),and set the mechanism to the recording and pausing conditions in advance. 3.Confirm that the BIAS TP frequency on the P.C.board is 100kHz±6kHz.	100kHz ±6kHz	
Eraser current (Reference value)	*Recording and playback side forward or reverse *Recording mode *Test tape :AC-514 and AC-225 Measurement terminal Both of the eraser head	1.With the recording and playback mechanism, load the test tapes(AC-514 to TYP Ⅱ and AC-225 to TYP Ⅰ),and set the mechanism to the recording and pausing condition in advance. 2.After setting to the recording conditions,connect 1MΩ in series to the eraser head on the recording and playback mechanism side,and measure the eraser current from both of the eraser terminal.	TYP Ⅱ :120mA TYP Ⅰ :75mA	

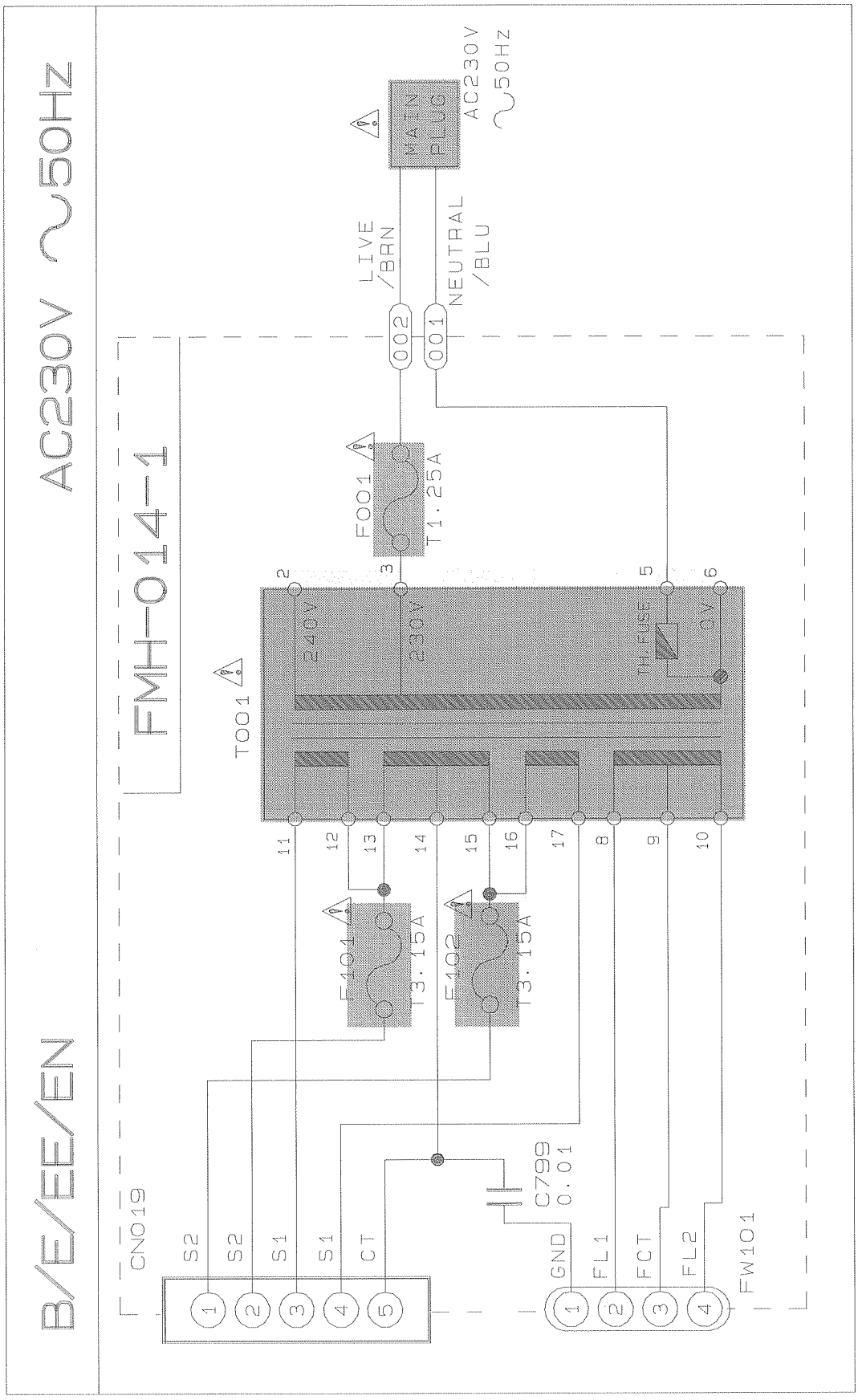
■Block Diagrams



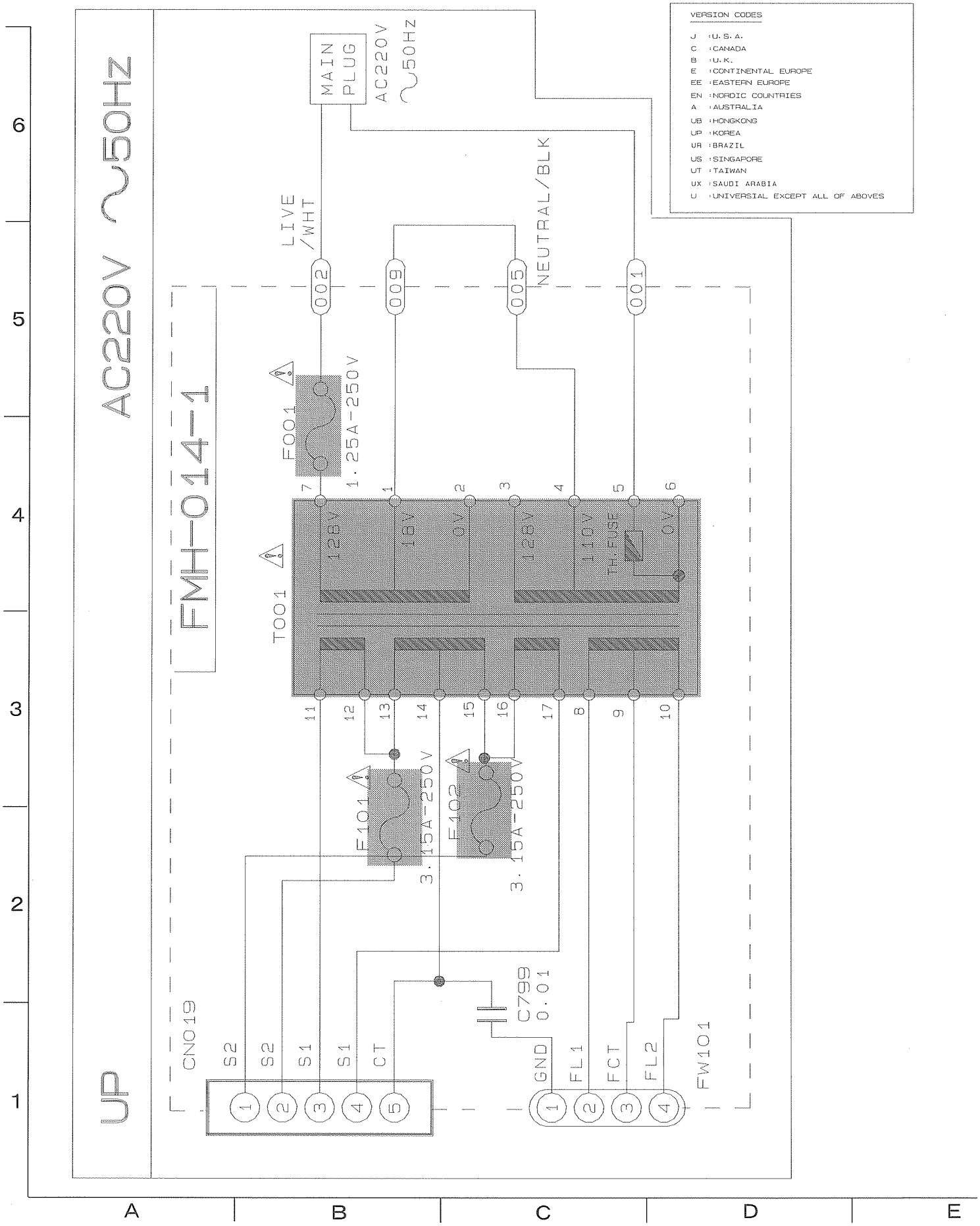
MEMO

Power Primary Section for J/C and B/E/EE/EN

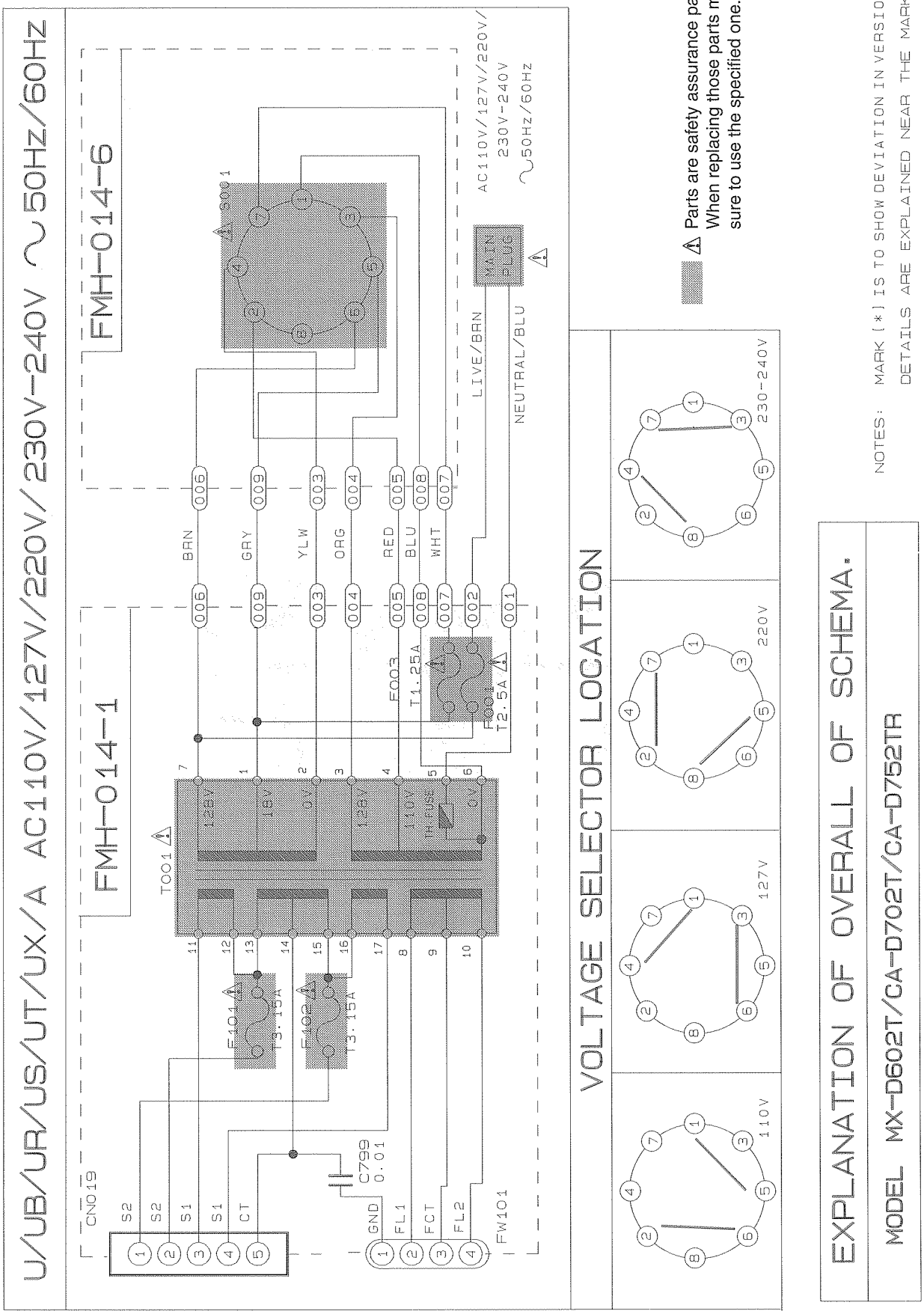



B/E/EE/EN
AC230V ∿50Hz
FMH-014-1
MAIN PLUG
AC230V ∿50Hz
LIVE /BRN
NEUTRAL /BLU
002
001
F001 T1.25A
T001
240V
230V
TH FUSE
0V
F101 T3.15A
F102 T3.15A
C799 0.01
CN019
S2
S2
S1
S1
CT
GND
FL1
FCT
FL2
FW101

Power Primary Section for U/UB/UA/US/UT/UX/A and UP

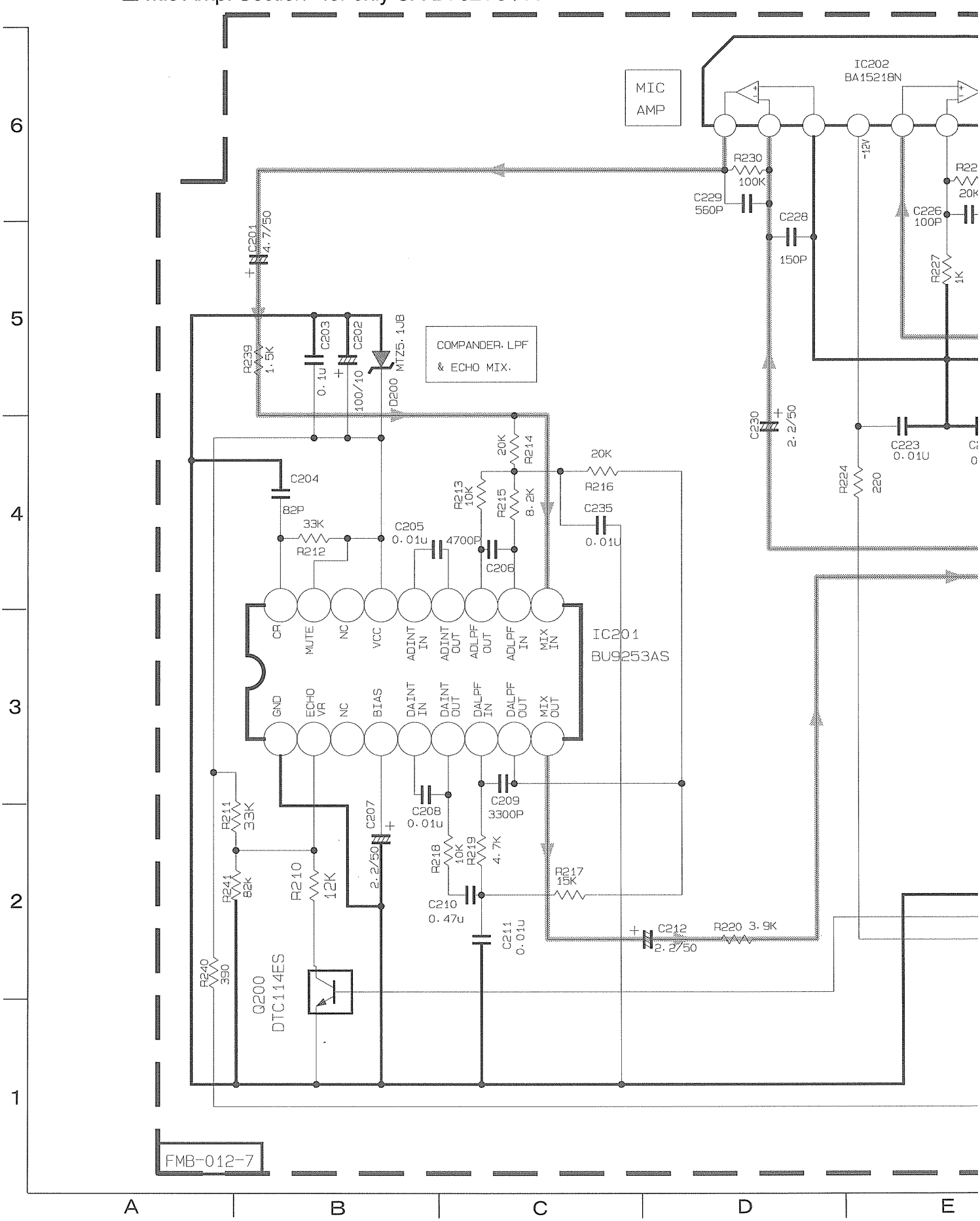


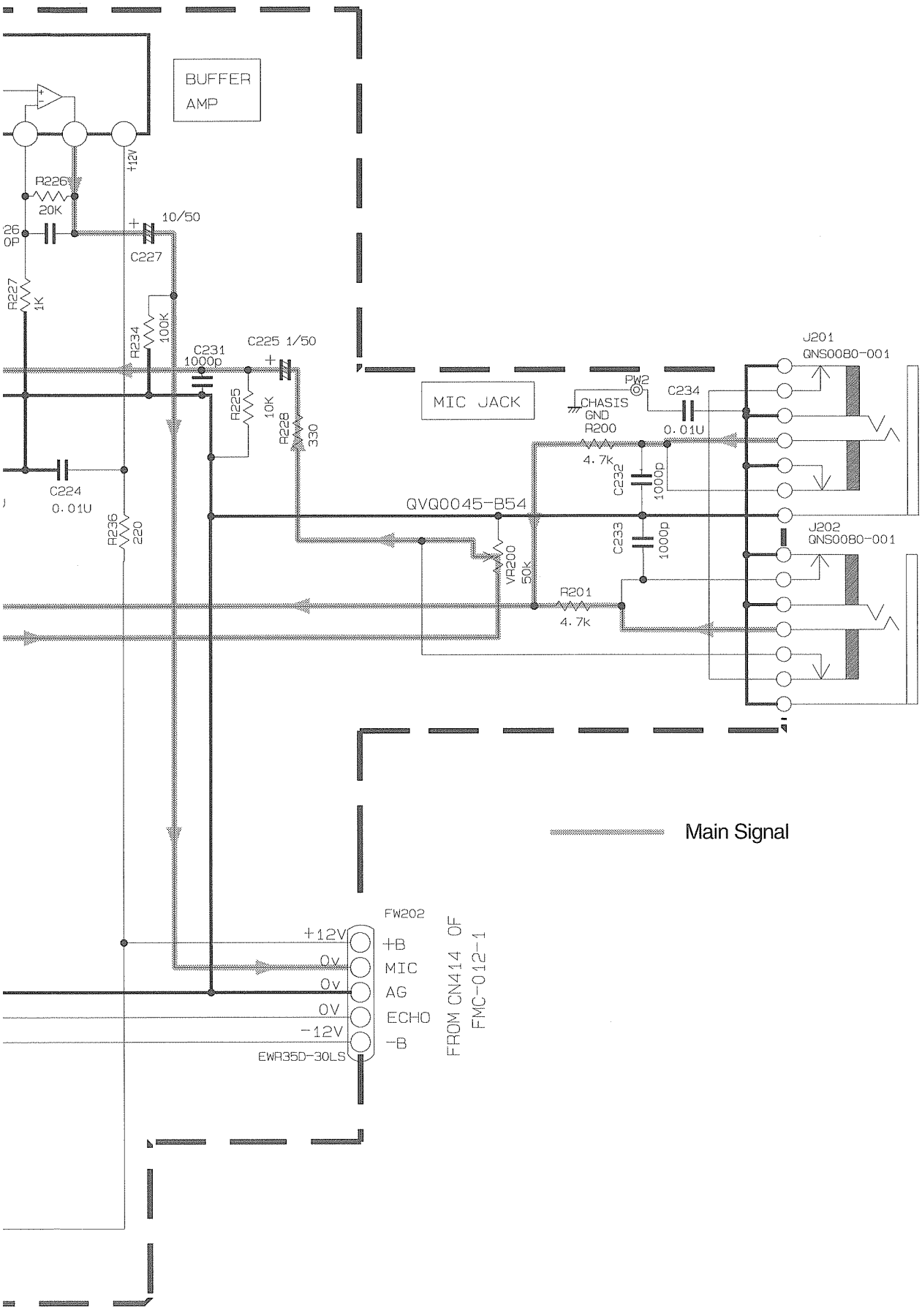
CA-D702T/D752TR



E F G H I

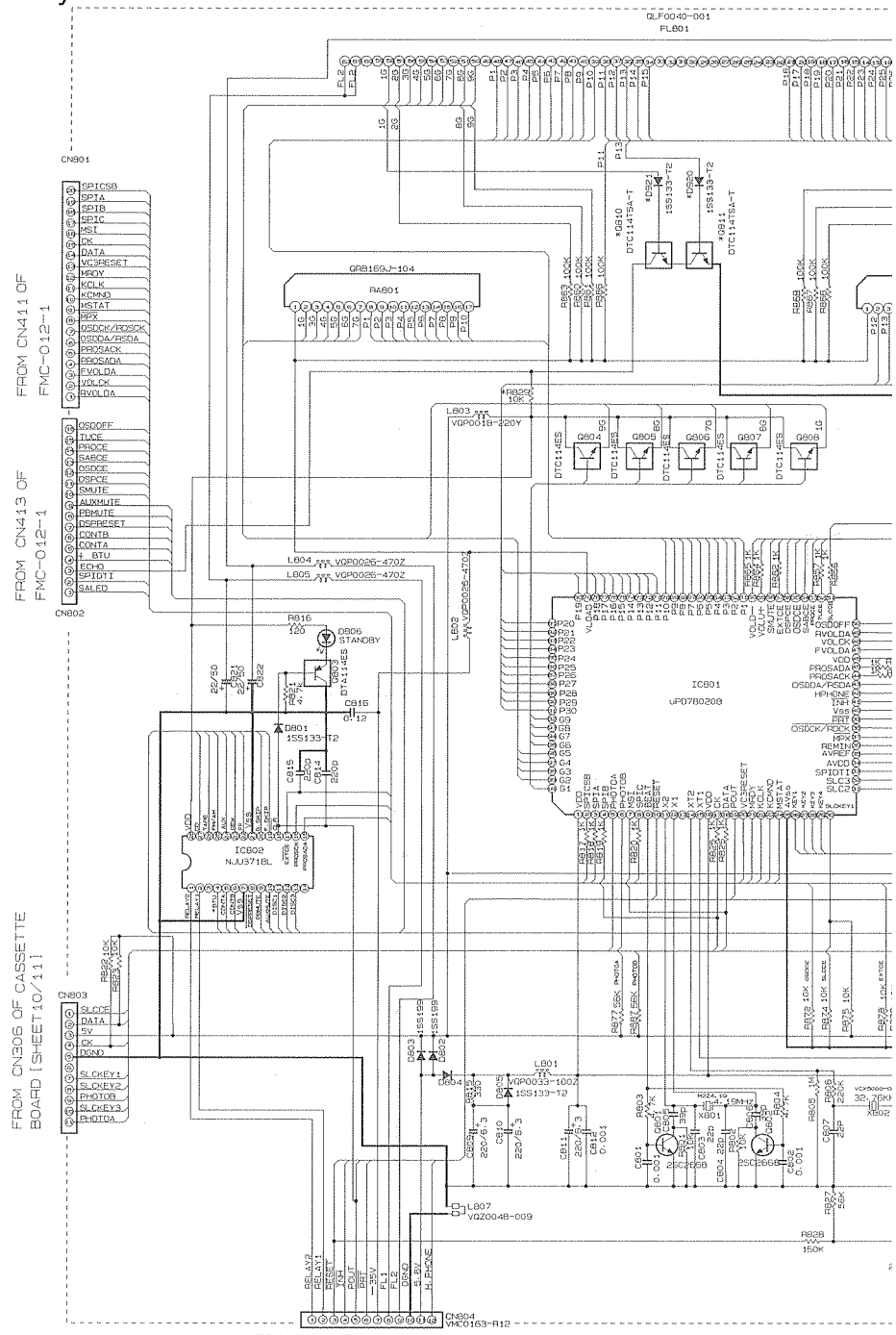
■ Mic Amp. Section for only CA-D702TU / A




BUFFER
AMP
+12V
R226
20K
10/50
C227
R227
1K
R234
100K
C231
1000p
C225 1/50
R225
10K
R228
330
C224
0.01U
R236
220
MIC JACK
PW2
CHASIS
GND
C234
0.01U
R200
4.7k
C232
1000p
QVQ0045-B54
C233
1000p
VR200
50k
R201
4.7k
J201
QNS0080-001
J202
QNS0080-001
Main Signal
FW202
+12V
0v
0v
0V
-12V
+B
MIC
AG
ECHO
-B
EWR35D-30LS
FROM CN414 OF
FMC-012-1

E F G H I

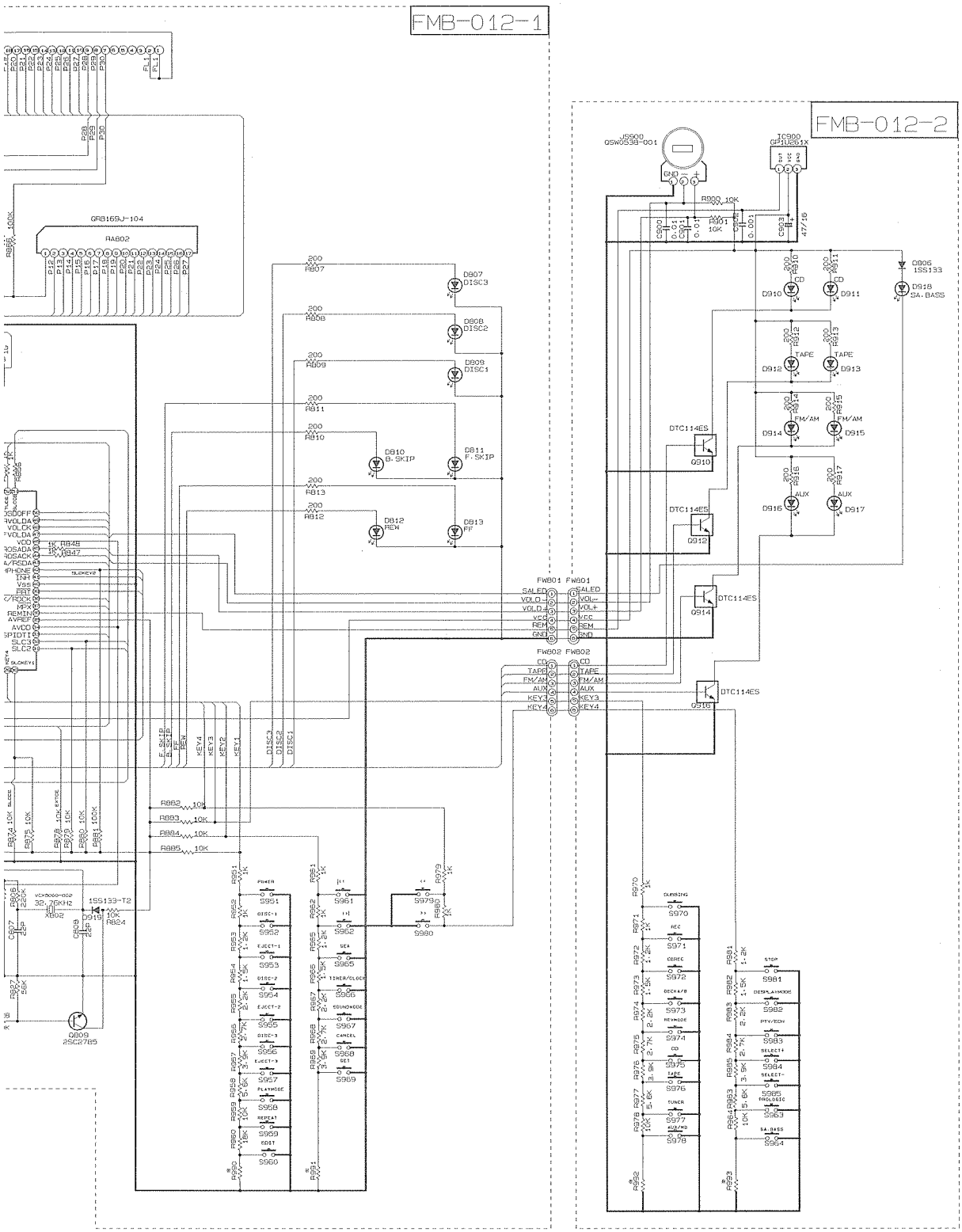
FL / System Control Section



*MARK

MODEL	VERSION	R992	R993	R990	R991	S982	S983	S984	S985	S963	Q810/Q811	D920/D921	R829
MX-D402T	J. C	18K	18K	220K	33K	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE
	U	18K	68K	220K	33K	NONE	NONE	NONE	NONE	NONE	USED	USED	USED
	UR	18K	NONE	220K	33K	NONE	NONE	NONE	NONE	NONE	USED	USED	USED
	A	18K	68K	220K	33K	NONE	NONE	NONE	NONE	NONE	USED	USED	USED
CA-D452TR/D432TR	B/E/EN	18K	68K	220K	82K	USED	USED	USED	USED	NONE	NONE	NONE	NONE
	EE	68K	18K	220K	82K	USED	USED	USED	USED	NONE	NONE	NONE	NONE
MX-D602T	J/C	18K	18K	47K	33K	NONE	NONE	NONE	NONE	USED	NONE	NONE	NONE
CA-D702T	U/UP/US/UT/UX	18K	68K	47K	33K	NONE	NONE	NONE	NONE	USED	USED	USED	USED
	UR	18K	NONE	47K	33K	NONE	NONE	NONE	NONE	USED	USED	USED	USED
	A	18K	68K	47K	33K	NONE	NONE	NONE	NONE	USED	USED	USED	USED
CA-D752TR	B/E/EN	18K	68K	47K	82K	USED	USED	USED	USED	USED	NONE	NONE	NONE
	EE	68K	18K	47K	82K	USED	USED	USED	USED	USED	NONE	NONE	NONE
CA-MXD330		68K	68K	220K	82K	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE

CA-D702T/D752TR

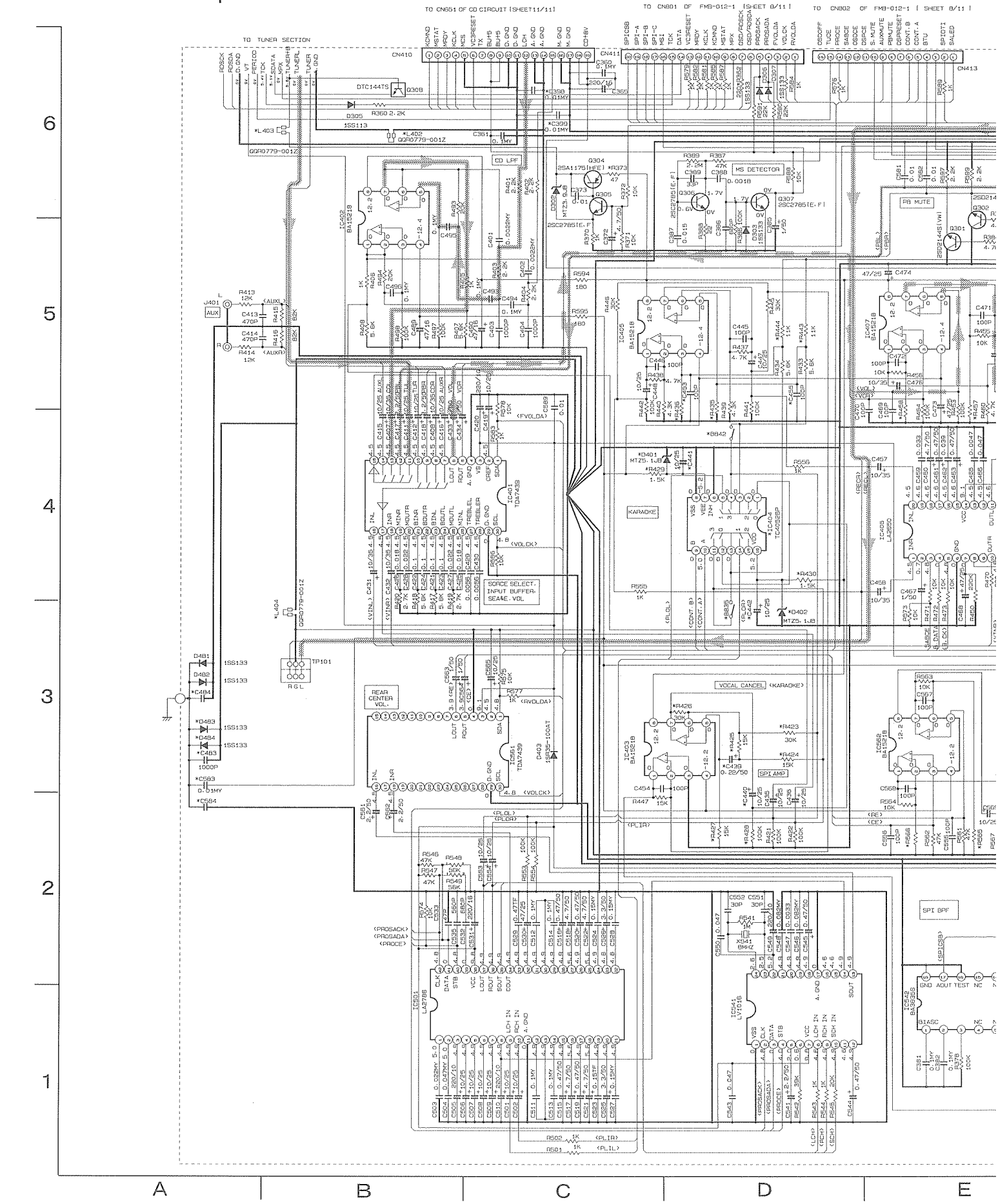


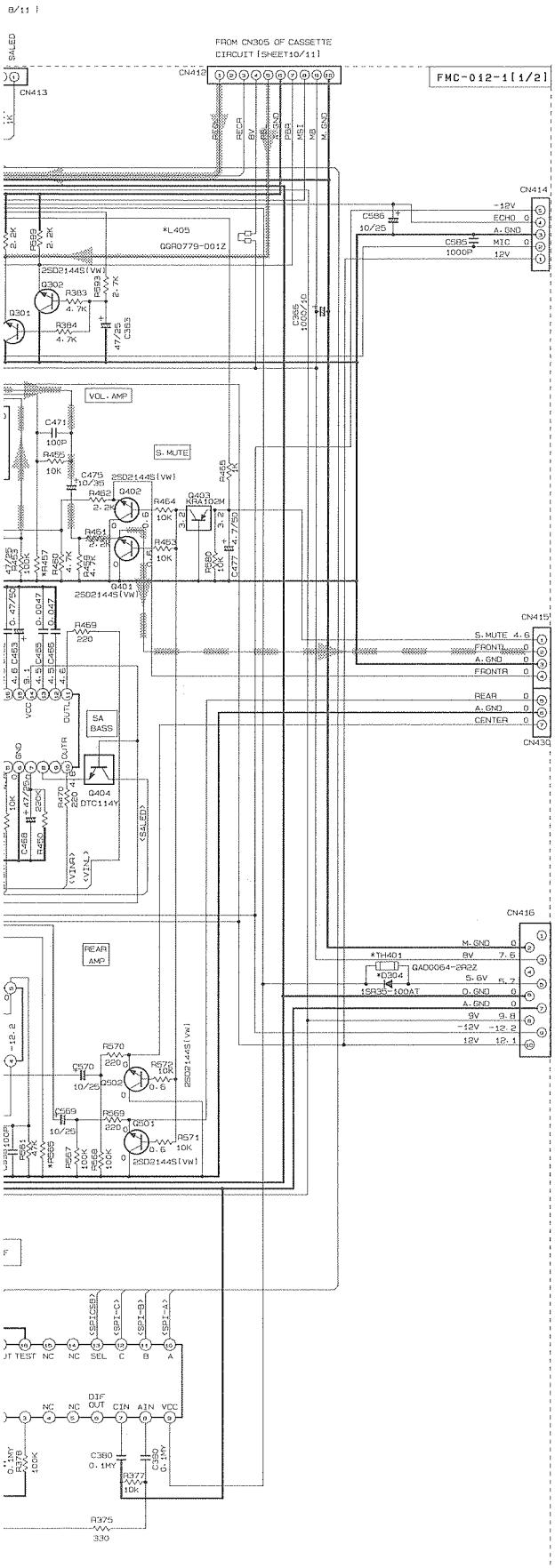
NOTES

1. VOLTAGES ARE DC-MEASURED WITH A DIGITAL VOLT METER OR OSCILLOSCOPE WITHOUT INPUT SIGNAL.
   CONDITION --- TAPE PB MODE
2. UNLESS OTHERWISE SPECIFIED
   RESISTORS ARE 1/6W ±5% CARBON RESISTOR.
   ALL RESISTANCE VALUES ARE IN OHM(Ω).
   ALL CAPACITORS ARE CERAMIC CAPACITOR OR MYLAR CAPACITOR.
   ALL CAPACITANCE VALUES ARE IN μF(PF=pF).
   ALL INDUCTANCE VALUES ARE IN μH(mH=mH).
   ALL E.CAPACITORS ARE SHOWN IN THE FORM OF CAPACITANCE [μF]/RATED VOLTAGE [V].
   ALL DIODES ARE 1SS133

E | F | G | H | I

Input / Source Selector Section





Input Signal

Front Signal

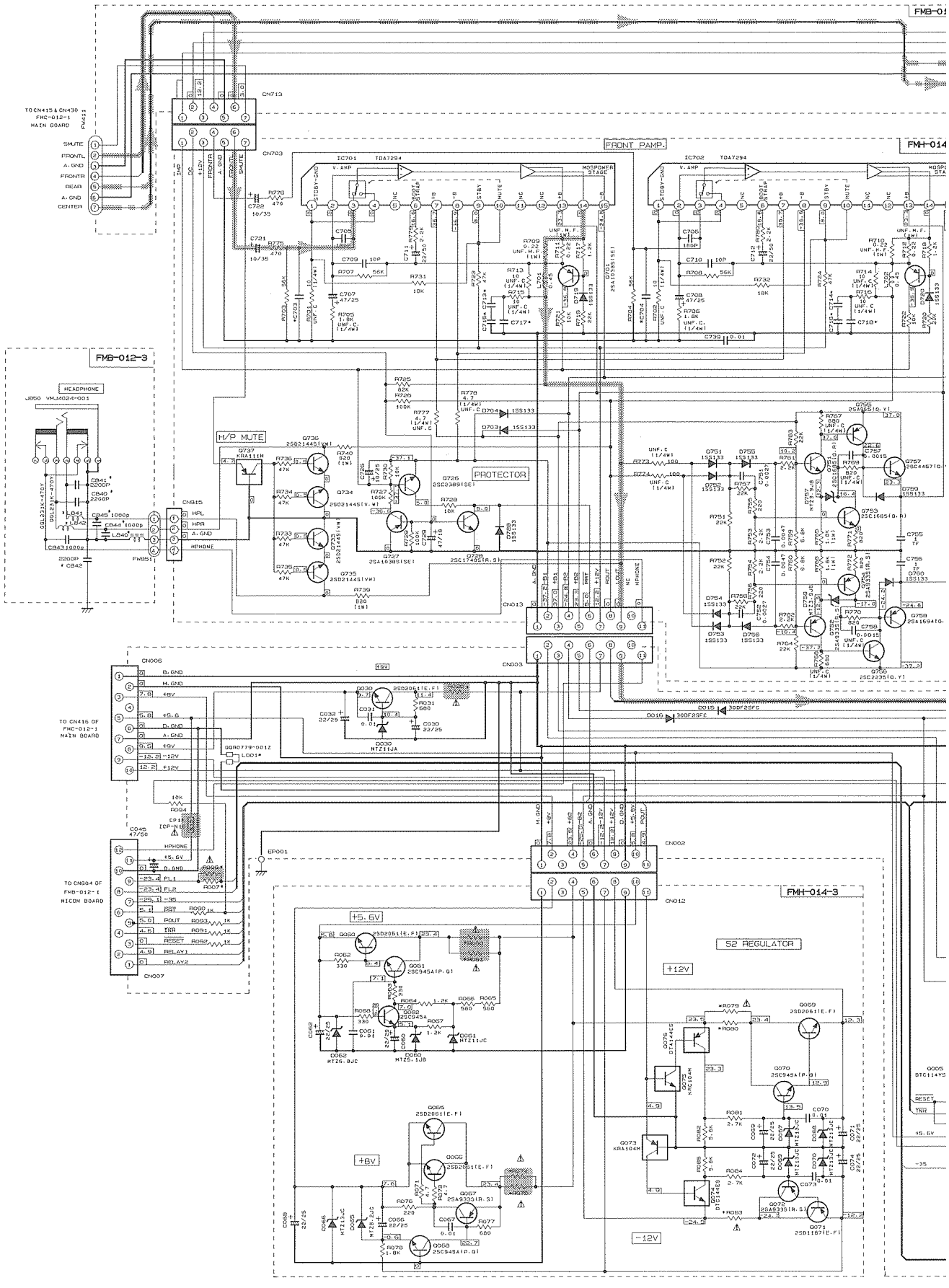
Rear Signal

Center Signal

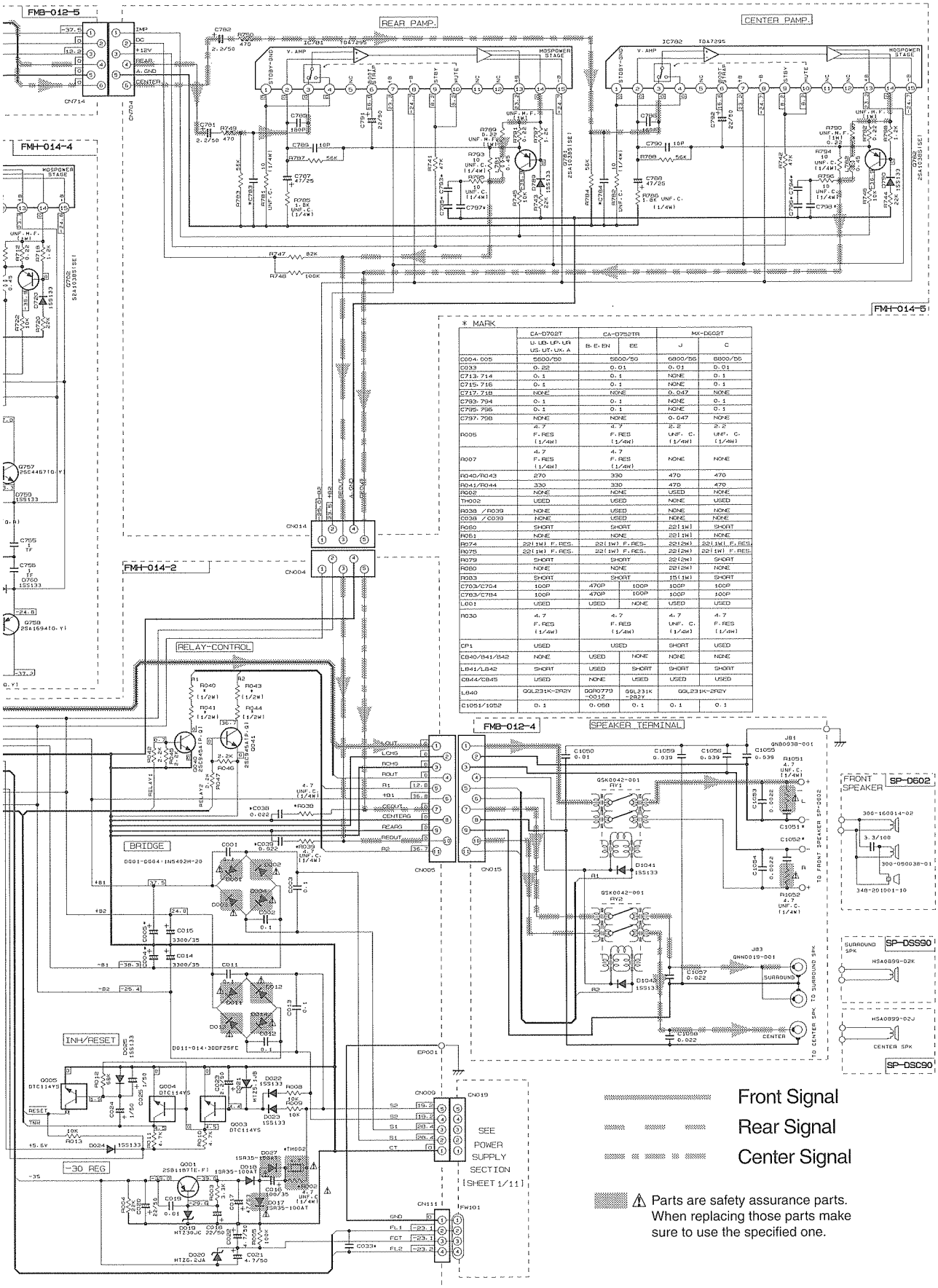
* MARK　　O : USED　X : NONE

FUNC	SYMBOL	MX-D602T		CA-D702T		CA-D752TR	
		J	C	U, US, UP UT, UB	A	B, E, EN	EE
KARAOKE	R423-R428	X	X	0	0	X	X
	C439-C440	X	X	0	0	X	X
SW/LED	IC404	0	0	0	0	0	0
	R429-R430	0	0	0	0	0	0
	C441-C442	0	0	0	0	0	0
	D401-D402	0	0	0	0	0	0
	B835/B842	X	X	X	X	X	X
MIC	R443, R444	X	X	0	0	X	X
MIX	R435, R436	4.7K	4.7K	8.2K	8.2K	4.7K	4.7K
GAIN	R457, R458	5.6K	5.6K	7.5K	7.5K	7.5K	7.5K
	R565, R566	1.3K	1.3K	1.6K	1.6K	1.6K	1.6K
	C483	0	0	X	X	X	X
	C583	X	X	X	X	0	X
	C584	0.01MY	0.01MY	X	X	0.01	X
	D304	0	X	X	X	X	X
	TH401	X	0	0	0	0	0
	R362	X	X	X	X	0	0
	C453-C455	X	X	X	X	0	X
	C484	100P	100P	100P	100P	0.0022	100P
	L402	0	0	0	0	0	SHORT
	L403	0	0	0	0	0	SHORT
	L404	SHORT	SHORT	SHORT	SHORT	0	0
	L405	SHORT	SHORT	SHORT	SHORT	0	SHORT
	R373	1/4W UNF. C. RES	1/4W FUSIBLE RESISTOR				
	C398-C399	0	0	0	0	0	X

Audio Output Section



CA-D702T/D752TR

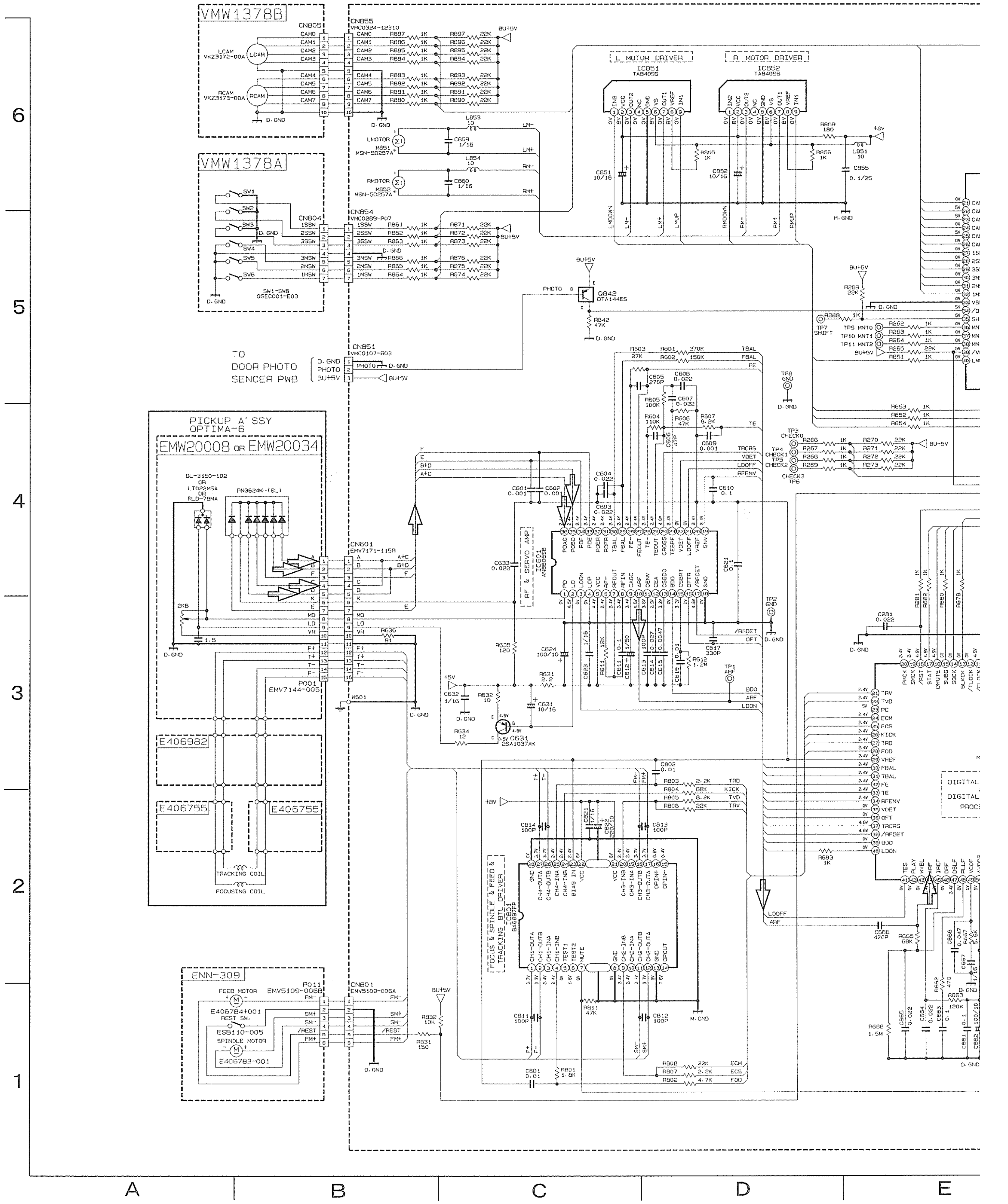


* MARK

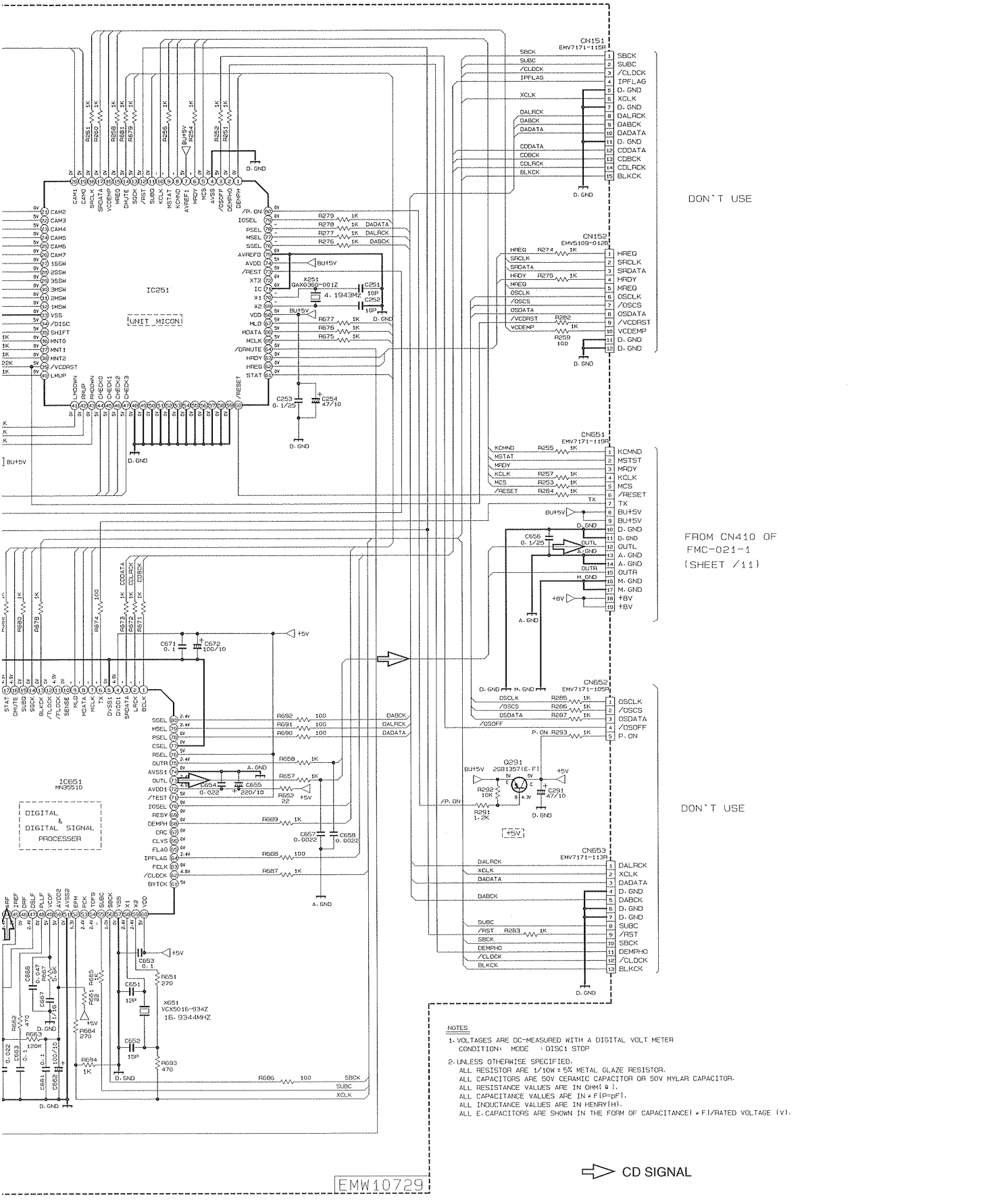
	CA-D702T	CA-D752TR		MX-D602T	
	U, UB, UP, UB US, UT, UK, A	B, E, EN	EE	J	C
C004, 005	5600/50	5600/50		6800/35	6800/35
C033	0.22	0.01		0.01	0.01
C713, 714	0.1	0.1		NONE	0.1
C715, 716	0.1	0.1		NONE	0.1
C717, 718	NONE	NONE		0.047	NONE
C793, 794	0.1	0.1		NONE	0.1
C795, 796	0.1	0.1		NONE	0.1
C797, 798	NONE	NONE		0.047	NONE
R005	4.7 F.RES (1/4W)	4.7 F.RES (1/4W)		2.2 UNF. C. (1/4W)	2.2 UNF. C. (1/4W)
R007	4.7 F.RES (1/4W)	4.7 F.RES (1/4W)		NONE	NONE
R040/R043	270	330		470	470
R041/R044	330	330		470	470
R002	NONE	NONE		USED	NONE
TH002	USED	USED		NONE	USED
R038 /R039	NONE	USED		NONE	NONE
C038 /C039	NONE	USED		NONE	NONE
R050	SHORT	SHORT		22(1W)	SHORT
R051	NONE	NONE		22(1W)	NONE
R074	22(1W) F.RES.	22(1W) F.RES.		22(2W)	22(1W) F.RES
R075	22(1W) F.RES.	22(1W) F.RES.		22(2W)	22(1W) F.RES
R079	SHORT	SHORT		22(2W)	SHORT
R080	NONE	NONE		22(2W)	NONE
R083	SHORT	SHORT		15(1W)	SHORT
C703/C704	100P	47GP	100P	100P	100P
C783/C784	100P	47GP	100P	100P	100P
L001	USED	USED	NONE	USED	USED
R030	4.7 F.RES (1/4W)	4.7 F.RES (1/4W)		4.7 UNF. C. (1/4W)	4.7 F.RES (1/4W)
CP1	USED	USED		SHORT	USED
C840/841/842	NONE	USED	NONE	NONE	NONE
L841/L842	SHORT	USED	SHORT	SHORT	SHORT
C844/C845	USED	NONE	USED	USED	USED
L840	QQL231K-2R2Y	QQR0779 -0012	QQL231K -2R2Y	QQL231K-2R2Y	
C1051/1052	0.1	0.068	0.1	0.1	0.1

⚠ Parts are safety assurance parts. When replacing those parts make sure to use the specified one.

CD Section



VMW1378B
CN805
LCAM VKZ3172-00A
RCAM VKZ3173-00A
CN855 VMC0324-12310
CAM0 CAM1 CAM2 CAM3 CAM4 CAM5 CAM6 CAM7
BU+5V
D. GND
LMOTOR M851 MSN-5D257A
RMOTOR M852 MSN-5D257A
L853 10
L854 10
C859 1/16
C860 1/16
VMW1378A
SW1 SW2 SW3 SW4 SW5 SW6
SW1-SW6 QSEC001-E03
CN804
CN854 VMC0289-P07
1SSW 2SSW 3SSW 3MSW 2MSW 1MSW
L MOTOR DRIVER
IC851 TA8409S
R MOTOR DRIVER
IC852 TA8409S
IN2 VCC OUT2 NC GND VS OUT1 VREF IN1
R859 180
+8V
R855 1K
R856 1K
L851 10
C851 10/16
C852 10/16
C855 0.1/25
M. GND
LMDOWN LM- LM+ LMUP RMDOWN RM- RM+ RMUP
PHOTO
Q842 DTA144ES
R842 47K
TO DOOR PHOTO SENCER PWB
CN851 VMC0107-R03
R289 22K
R288 1K
TP7 SHIFT
TP9 MNT0
TP10 MNT1
TP11 MNT2
R262 R263 R264 R265 R851
R853 R852 R854
TP8 GND
TP3 CHECK0
TP4 CHECK1
TP5 CHECK2
CHECK3 TP6
R266 R267 R268 R269 R270 R271 R272 R273
PICKUP A'SSY OPTIMA-6
EMW20008 OR EMW20034
DL-3150-102 OR LT022MSA OR RLD-78MA
PN3624K-(SL)
2KB
CN601 EMV7171-115A
P001 EMV7144-005
W601
E406982
E406755
TRACKING COIL
FOCUSING COIL
R603 27K
R601 270K
R602 150K
TBAL FBAL FE TE TRCRS VDET LDOFF RFENV
C605 270P
C608 0.022
R605 100K
C607 0.022
R604 110K
R606 47K
R607 8.2K
C606 47P
C609 0.001
C604 0.022
C603 0.022
C601 0.001
C602 0.001
C610 0.1
RF & SERVO AMP
IC601 AN8805SB
PDAC PDBD PDF PDE PDER PDFR TBAL FBAL FE- FEOUT TE- TEOUT CROSS TEBPF VDET LDOFF VREF ENV
PD LD LDON LDP VCC RF- RFOUT RFIN CAGC ARF CENV CEA CSBDO BDO CSBRT OFTR /RFDET GND
C633 0.022
C621 0.1
TP2 GND
C617 330P
/RFDET OFT
R636 91
R635 120
C624 100/10
C623 1/16
R611 12K
C611 0.1
C612 1/50
C613 100P
C614 0.027
C615 0.0047
C616 0.01
R612 1.2M
TP1 ARF
BDO ARF LDON
+5V
C632 1/16
R632 10
R631 2.2
C631 10/16
R634 12
Q631 2SA1037AK
C802 0.01
R803 2.2K TRD
R804 68K KICK
R805 8.2K TVD
R806 22K TRV
C814 100P
C821 1/16
C822 220/10
C813 100P
FOCUS & SPINDLE & FEED & TRACKING BTL DRIVER
IC801 BA6897FP
GND CH4-OUTA CH4-OUTB CH4-INA CH4-INB BIAS IN VCC VCC CH3-INB CH3-INA CH3-OUTB CH3-OUTA OPIN+ OPIN-
CH1-OUTA CH1-OUTB CH1-INA CH1-INB TEST1 TEST2 MUTE GND CH2-INB CH2-INA CH2-OUTB CH2-OUTA GND OPOUT
R811 47K
C811 100P
C812 100P
C801 0.01
R801 1.8K
R808 22K ECM
R807 2.2K ECS
R802 4.7K FOD
ENN-309
FEED MOTOR
E406784+001
REST SW.
ESB110-005
SPINDLE MOTOR
E406783-001
P011 EMV5109-006B
CN801 EMV5109-006A
FM- SM+ SM- /REST FM+
R832 10K
R831 150
TRV TVD PC ECM ECS KICK TRD FOD VREF FBAL TBAL FE TE RFENV VDET OFT TRCRS /RFDET BDO LDON
PMCK SMCK /RST STAT DMUTE SUBQ SQCK BLKCK /TLOCK
TES PLAY WVEL ARF IREF DRF DSLF PLLF VCOF
R281 R682 R680 R678
C281 0.022
R683 1K
LDOFF ARF
C666 470P
R665 68K
C656 0.047
R667 5.6K
C657 1/16
R662 470
R663 120K
R666 1.5M
C665 0.022
C664 0.022
C663 0.1
C661 0.1
C662 100/10
DIGITAL
DIGITAL
PROCE
6 5 4 3 2 1
A B C D E



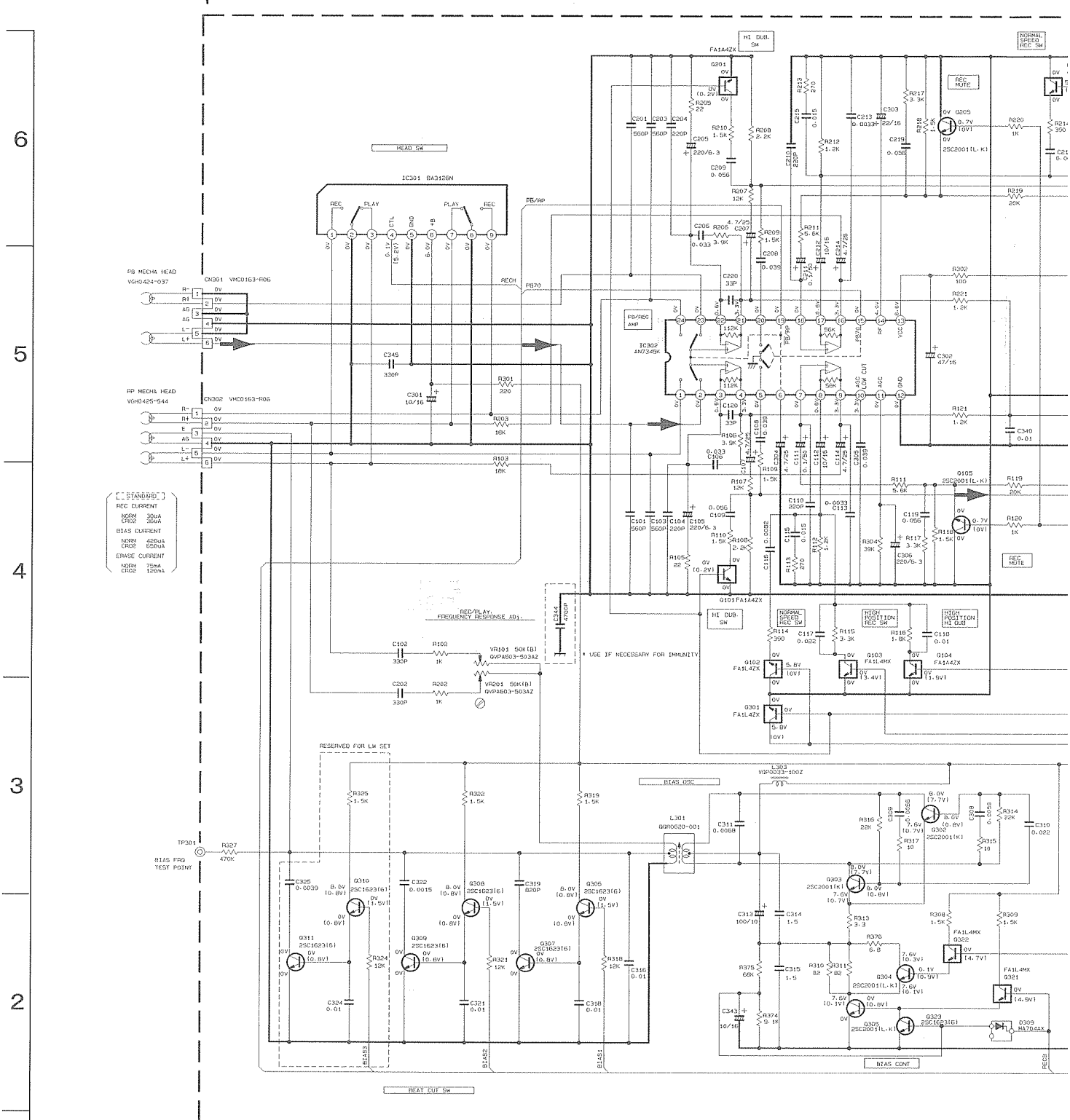
NOTES

1. VOLTAGES ARE DC-MEASURED WITH A DIGITAL VOLT METER
   CONDITION: MODE : DISC1 STOP

2. UNLESS OTHERWISE SPECIFIED.
   ALL RESISTOR ARE 1/10W ± 5% METAL GLAZE RESISTOR.
   ALL CAPACITORS ARE 50V CERAMIC CAPACITOR OR 50V MYLAR CAPACITOR.
   ALL RESISTANCE VALUES ARE IN OHM(Ω).
   ALL CAPACITANCE VALUES ARE IN μF(P=pF).
   ALL INDUCTANCE VALUES ARE IN HENRY(H).
   ALL E.CAPACITORS ARE SHOWN IN THE FORM OF CAPACITANCE(μF)/RATED VOLTAGE (V).

E | F | G | H | I

Tape Section

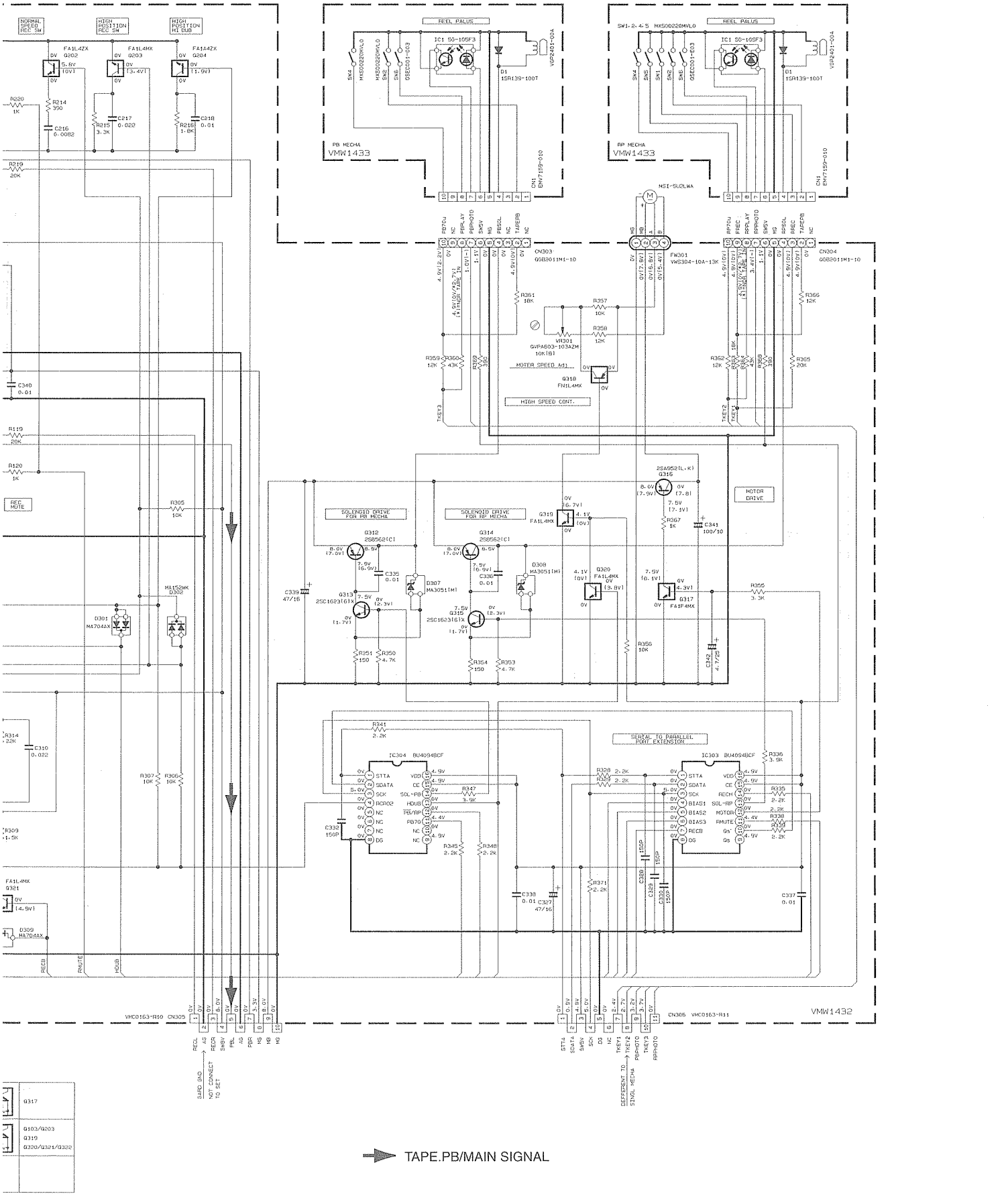


NOTES

1. VOLTAGES ARE DC-MEASURED WITH A DIGITAL VOLT METER OR OSCILLOSCOPE WITHOUT INPUT SIGNAL. [ ] IS INVERT MODE
2. UNLESS OTHERWISE SPECIFIED
   ALL RESISTANCE VALUES ARE IN OHM[Ω].
   ALL CAPACITORS ARE CERAMIC CAPACITOR
   ALL CAPACITANCE VALUES ARE IN μF(P=pF).
   ALL INDUCTANCE VALUES ARE IN μH(m=mH).
   ALL E.CAPACITORS ARE SHOWN IN THE FORM OF CAPACITANCE (μF)/RATED VOLTAGE (V).
   PP PLYPROPYLENE CAPACITOR

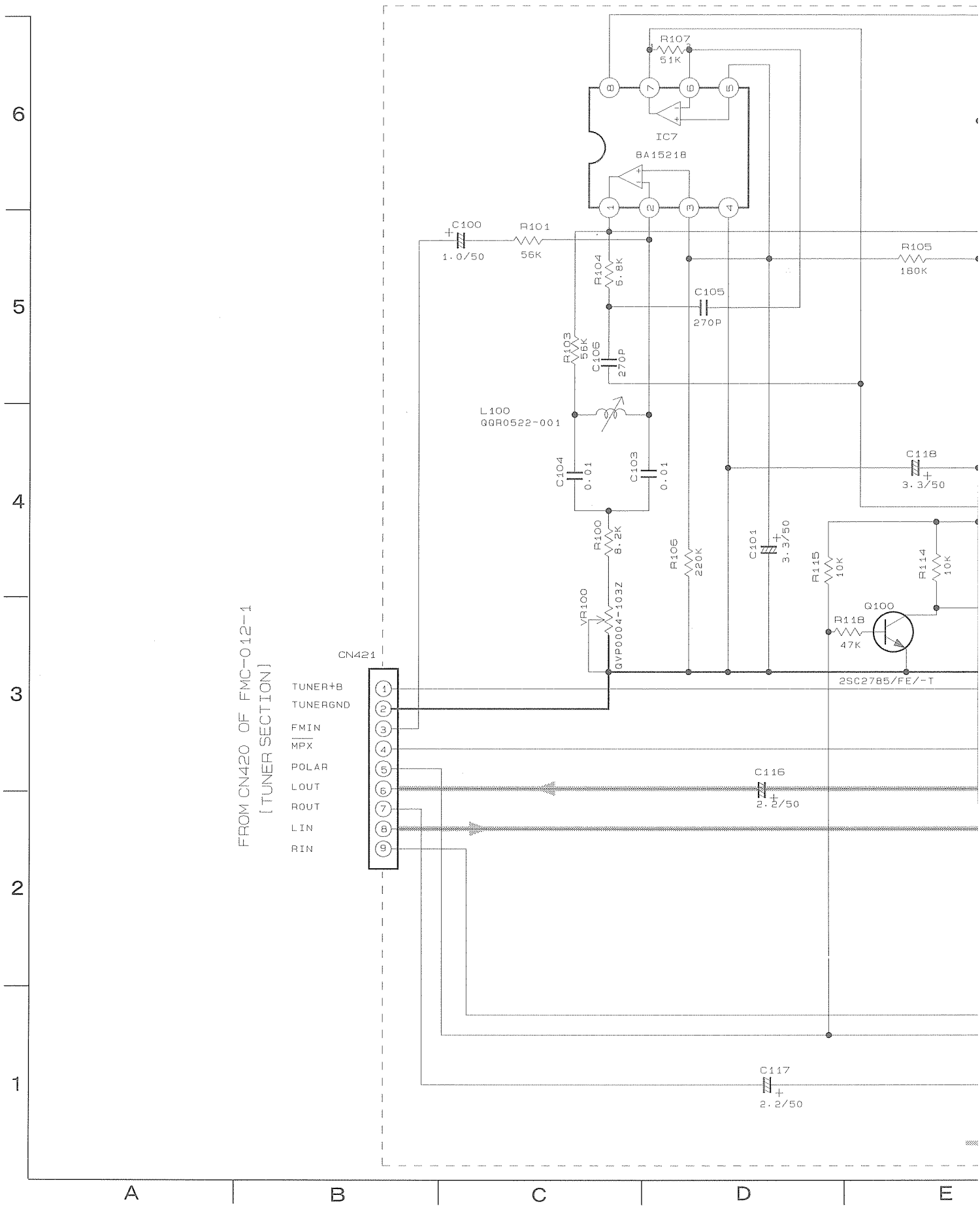
TABLE 1. DIGITAL TR LIST

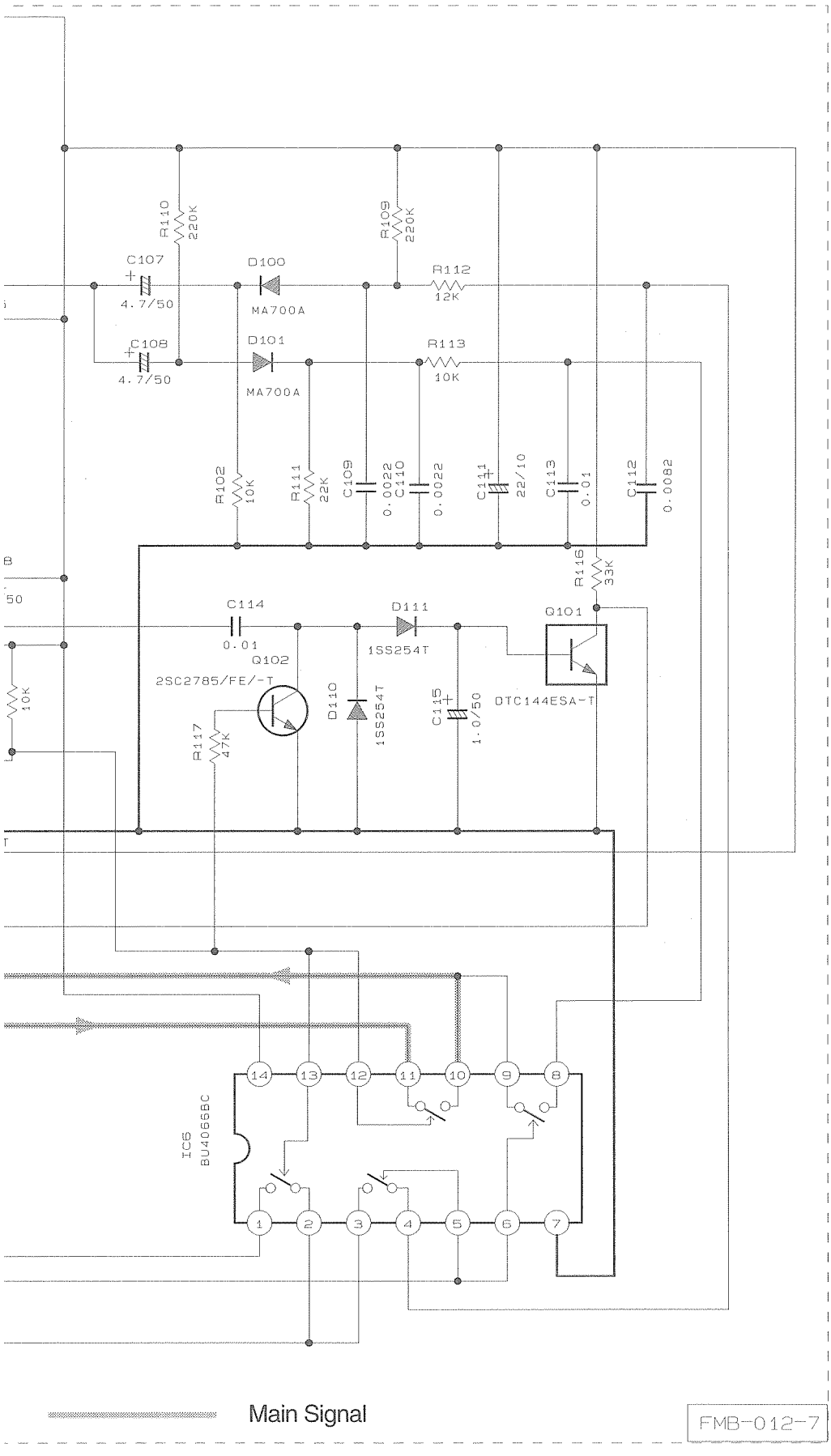
PART. NO	CONSTRUCTION	REF. NO			
FN3L4M	47K 47K	Q310	FA1F4H	22K 22K	Q317
FA1A4Z	10K	Q101/Q201 Q104/Q204	FA1L4H	47K 47K	Q103/Q203 Q319 Q320/Q321/Q3
FA1L4Z	47K	Q102/Q202 Q301			



	Q317
	Q103/Q203 Q319 Q320/Q321/Q322

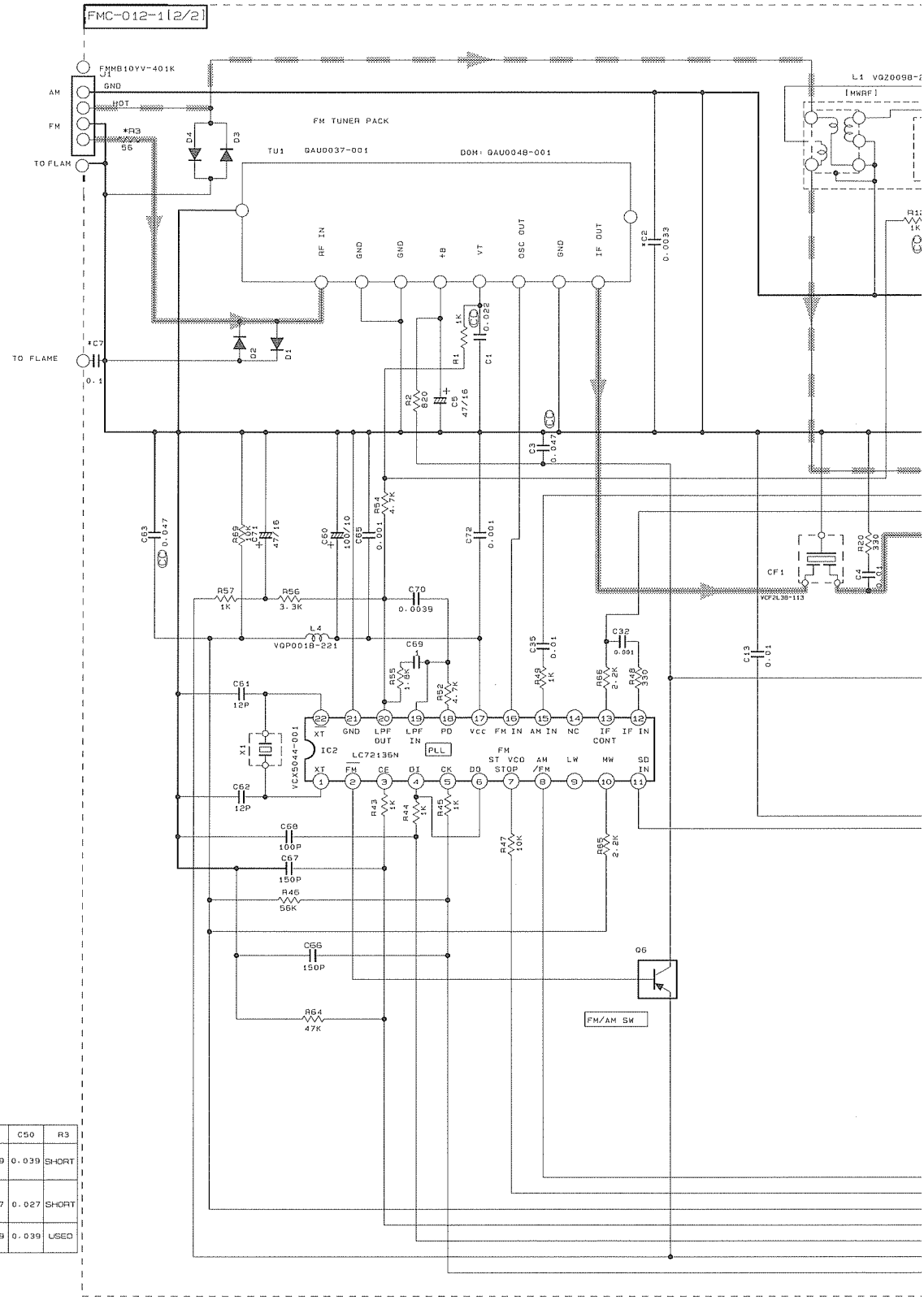
■ FM MPX Detector Section for only CA-D752TREE




R110
220K
R109
220K
C107
4.7/50
D100
MA700A
R112
12K
C108
4.7/50
D101
MA700A
R113
10K
R102
10K
R111
22K
C109
0.0022
C110
0.0022
C111
22/10
C113
0.01
C112
0.0082
R116
33K
C114
0.01
D111
1SS254T
Q101
DTC144ESA-T
Q102
2SC2785/FE/-T
D110
1SS254T
C115
1.0/50
R117
47K
10K
IC5
BU4066BC
14
13
12
11
10
9
8
1
2
3
4
5
6
7
Main Signal
FMB-012-7

E | F | G | H | I

Tuner Section for only CA-D702TU / UB / UP / US / UT / UX / A



*MARK

	C2, C7	C49	C50	R3
J, C	USED	0.039	0.039	SHORT
DDM	SHORT	0.027	0.027	SHORT
U, A	SHORT	0.039	0.039	USED

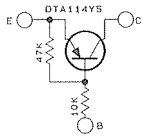
	CONDITION PIN NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
IC1	FM NO SIGNAL	2.0	0.5	0	2.0	5.2	5.2	0	0	0.2	5.2	5.2	1.0	1.0	4.6	3.8	3.8	1.4	0	1.3	1.1	2.0	2.0	5.2	2.0
	FM 60dB STEREO	2.0	0.5	0	2.0	5.2	5.2	1.1	0	0.2	0	0	1.0	1.0	4.5	4.1	3.9	1.4	0	1.2	1.1	2.0	2.0	5.2	2.0
	AM NO SIGNAL	2.0	0.5	0	2.0	5.0	5.2	0	0	0.2	5.2	5.2	1.0	1.0	4.8	2.2	0	1.4	1.4	1.5	1.6	2.0	2.0	5.2	2.0
IC2	FM NO SIGNAL	2.7	0	0	4.9	4.9	4.9	3.8	3.8	2.0	4.1	5.2	0	0	0	0	2.6	5.2	1.0	1.0	3.7	0	2.7		

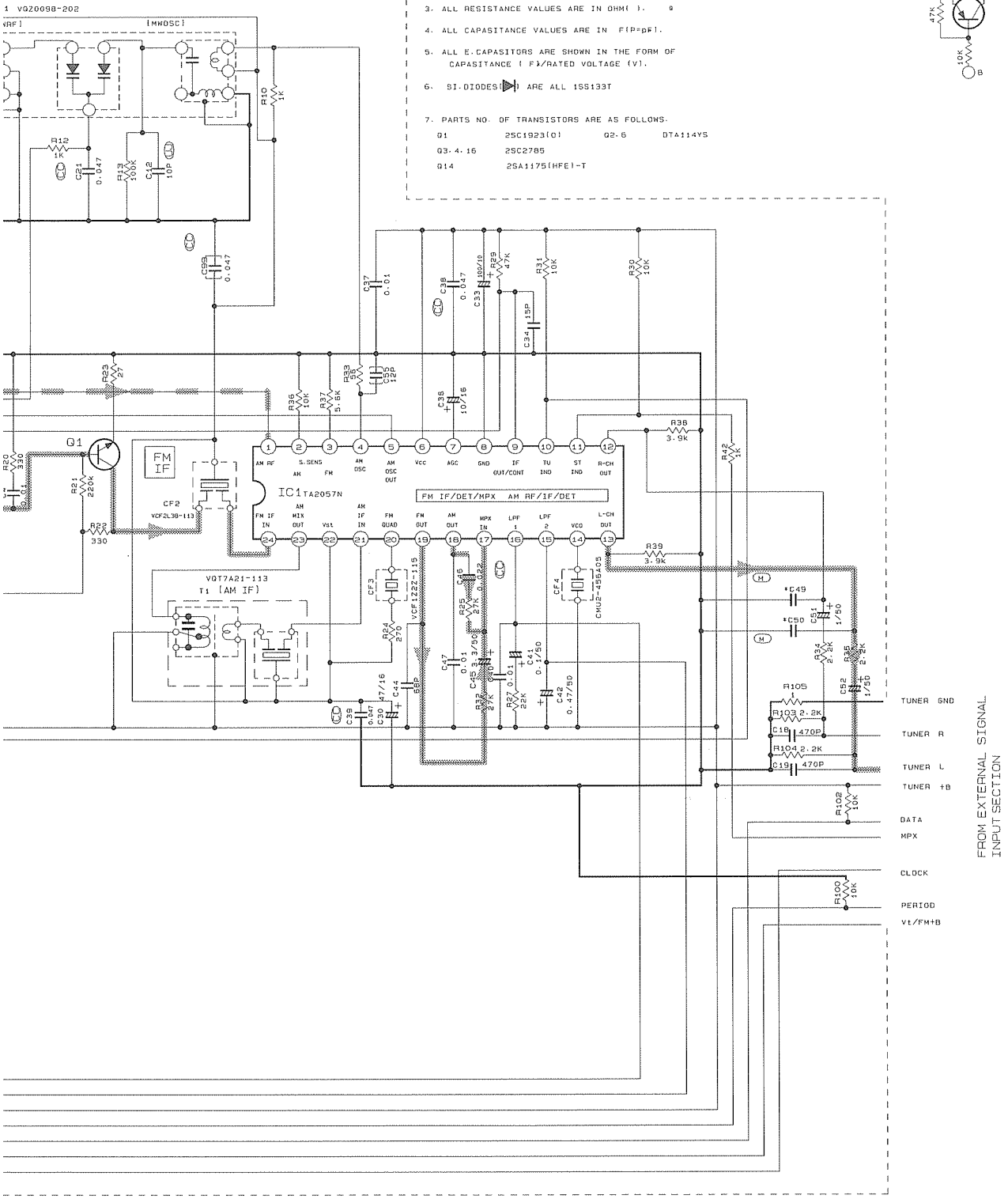
NOTES

1. VOLTAGES ARE DC-MEASURED WITH A DIGITAL VOLT METER.
2. ALL RESISTORS ARE 1/6W 5% CARBON RESISTOR.
3. ALL RESISTANCE VALUES ARE IN OHM( ).
4. ALL CAPASITANCE VALUES ARE IN F(P=pF).
5. ALL E.CAPASITORS ARE SHOWN IN THE FORM OF CAPASITANCE (F)/RATED VOLTAGE (V).
6. SI.DIODES( ) ARE ALL 1SS133T
7. PARTS NO. OF TRANSISTORS ARE AS FOLLOWS.

Q1	2SC1923(O)	Q2.6	DTA114YS
Q3.4.16	2SC2785		
Q14	2SA1175(HFE)-T		

8. INSIDE OF DIGITAL TRANSISTORS ARE SHOWN AS FOLLOWS.



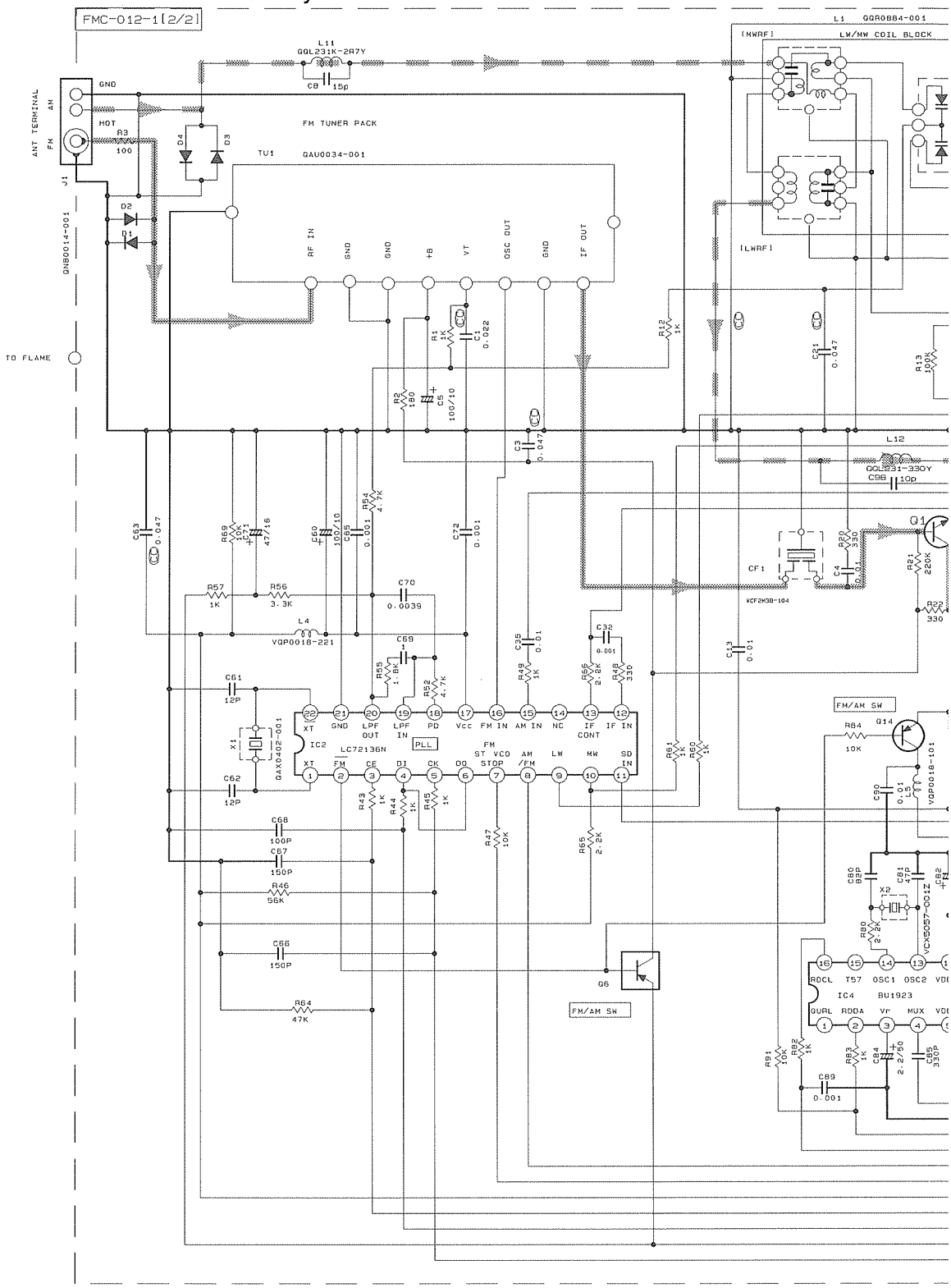


Tr NO.	Q1			Q6			Q16		
PIN NO.	E	C	B	E	C	B	E	C	B
FM 87.5MHz NO SIGNAL	0	8.3	0.8	9.8	9.7	0	1.0	3.5	1.6
AM 522KHz NO SIGNAL	0	0	0	9.8	0	9.7	1.0	3.5	1.6
Tr NO.	Q2			Q3			Q4		
PIN NO.	E	C	B	E	C	B	E	C	B
AM 522KHz NO SIGNAL	2.0	2.0	0.1	0	0	0.7	0	0	0.7
AM 144KHz NO SIGNAL	2.0	2.0	2.0	0	0	0.1	0	0	0.1

FM Signal

AM Signal

■ Tuner Section for only CA-D752TRE / EN / B



	CONDITION PIN NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
IC1	FM NO SIGNAL	2.0	0.5	0	2.0	5.2	5.2	0	0	0.2	5.2	5.2	1.0	1.0	4.6	3.8	3.8	1.4	0	1.3	1.1	2.0	2.0	5.2	2.0
	FM 60dB STEREO	2.0	0.5	0	2.0	5.2	5.2	1.1	0	0.2	0	0	1.0	1.0	4.5	4.1	3.9	1.4	0	1.2	1.1	2.0	2.0	5.2	2.0
	AM NO SIGNAL	2.0	0.5	0	2.0	5.0	5.2	0	0	0.2	5.2	5.2	1.0	1.0	4.8	2.2	0	1.4	1.4	1.5	1.6	2.0	2.0	5.2	2.0
IC2	FM NO SIGNAL	2.7	0	0	4.9	4.9	4.9	3.8	3.8	2.0	4.1	5.2	0	0	0	0	2.6	5.2	1.0	1.0	3.7	0	2.7		

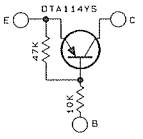
P1	
FM 87.5	
AM 522k	
P1	
AM 522k	
AM 144k	

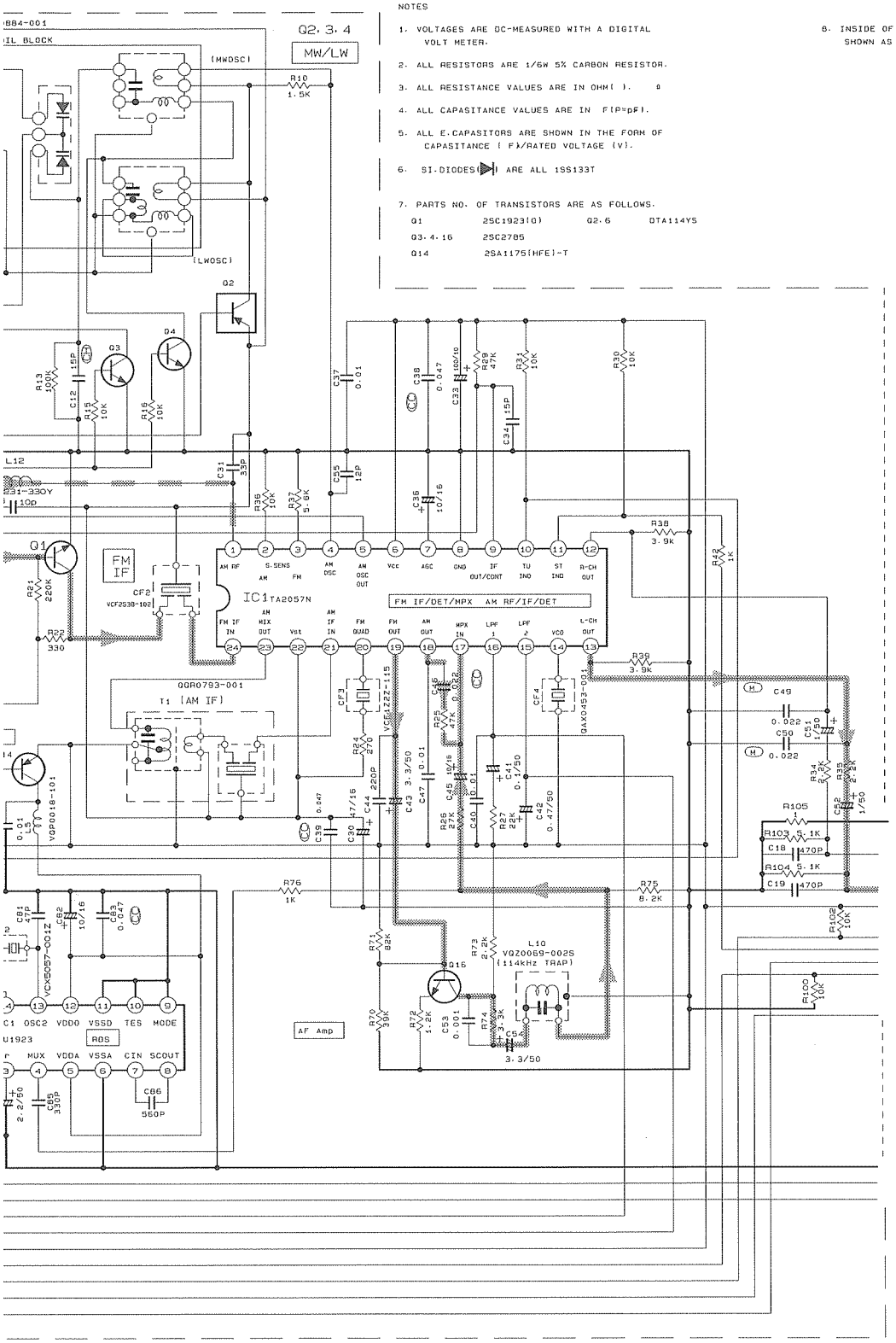
NOTES

1. VOLTAGES ARE DC-MEASURED WITH A DIGITAL VOLT METER.
2. ALL RESISTORS ARE 1/6W 5% CARBON RESISTOR.
3. ALL RESISTANCE VALUES ARE IN OHM( ).
4. ALL CAPASITANCE VALUES ARE IN F(P=pF).
5. ALL E.CAPASITORS ARE SHOWN IN THE FORM OF CAPASITANCE (F)/RATED VOLTAGE (V).
6. SI.DIODES ARE ALL 1SS133T
7. PARTS NO. OF TRANSISTORS ARE AS FOLLOWS.

Q1	2SC1923(Q)	Q2.6	DTA114YS
Q3.4.16	2SC2785		
Q14	2SA1175(HFE)-T		

8. INSIDE OF DIGITAL TRANSISTORS ARE SHOWN AS FOLLOWS.





Tr NO.	Q1			Q6			Q16		
PIN NO.	E	C	B	E	C	B	E	C	B
FM 87.5MHz NO SIGNAL	0	8.3	0.8	9.8	9.7	0	1.0	3.5	1.6
AM 522KHz NO SIGNAL	0	0	0	9.8	0	9.7	1.0	3.5	1.6

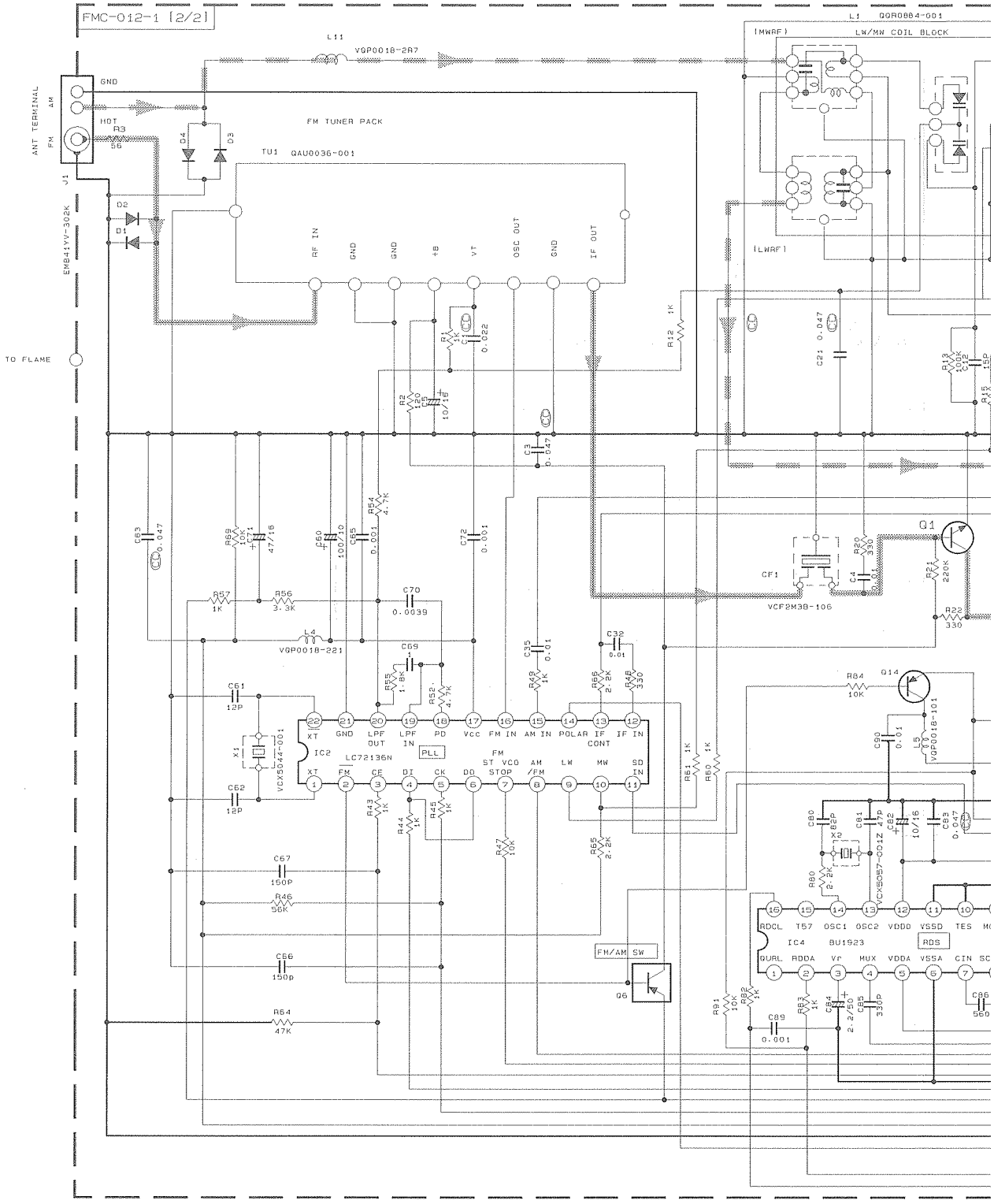
Tr NO.	Q2			Q3			Q4		
PIN NO.	E	C	B	E	C	B	E	C	B
AM 522KHz NO SIGNAL	2.0	2.0	0.1	0	0	0.7	0	0	0.7
AM 144KHz NO SIGNAL	2.0	2.0	2.0	0	0	0.1	0	0	0.1

FM Signal

AM Signal

E | F | G | H | I

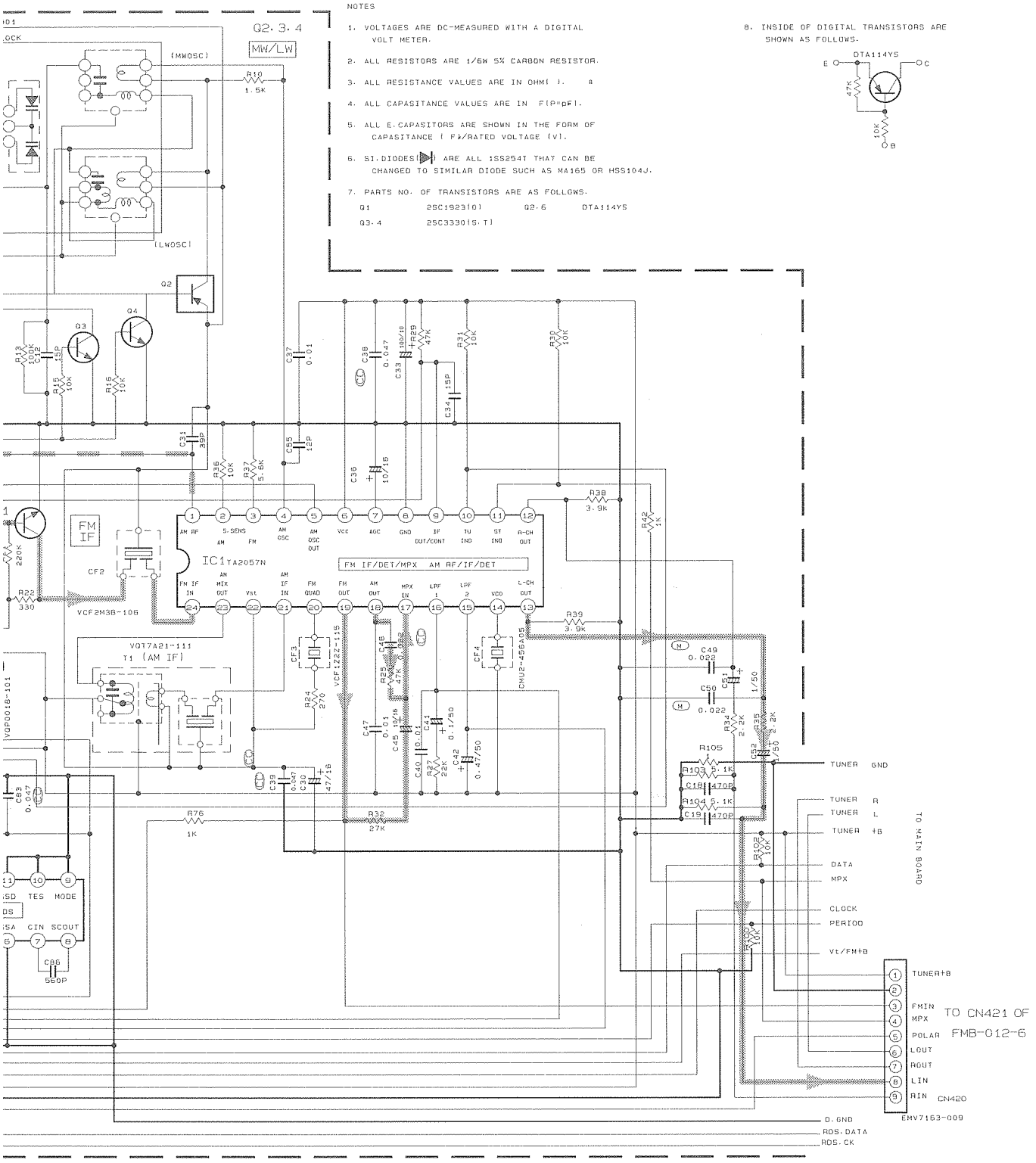
Tuner Section for only CA-D752TREE



	CONDITION PIN NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
IC1	FM NO SIGNAL	2.0	0.5	0	2.0	5.2	5.2	0	0	0.2	5.2	5.2	1.0	1.0	4.6	3.8	3.8	1.4	0	1.3	1.1	2.0	2.0	5.2	2.0
	FM 60dB STEREO	2.0	0.5	0	2.0	5.2	5.2	1.1	0	0.2	0	0	1.0	1.0	4.5	4.1	3.9	1.4	0	1.2	1.1	2.0	2.0	5.2	2.0
	AM NO SIGNAL	2.0	0.5	0	2.0	5.0	5.2	0	0	0.2	5.2	5.2	1.0	1.0	4.8	2.2	0	1.4	1.4	1.5	1.6	2.0	2.0	5.2	2.0
IC2	FM NO SIGNAL	2.7	0	0	4.9	4.9	4.9	3.8	3.8	2.0	4.1	5.2	0	0	0	0	2.6	5.2	1.0	1.0	3.7	0	2.7		

Tr NO	
PIN NO	
FM 87.5MHz	
AM 522KHz N	
Tr NO	
PIN NO	
AM 522KHz N	
AM 144KHz N	

CA-D702T/D752TR



Tr NO.	Q1			Q6					
PIN NO.	E	C	B	E	C	B	E	C	B
FM 87.5MHz NO SIGNAL	0	8.3	0.8	9.8	9.7	0			
AM 522KHz NO SIGNAL	0	0	0	9.8	0	9.7			
Tr NO.	Q2			Q3			Q4		
PIN NO.	E	C	B	E	C	B	E	C	B
AM 522KHz NO SIGNAL	2.0	2.0	0.1	0	0	0.7	0	0	0.7
AM 144KHz NO SIGNAL	2.0	2.0	2.0	0	0	0.1	0	0	0.1

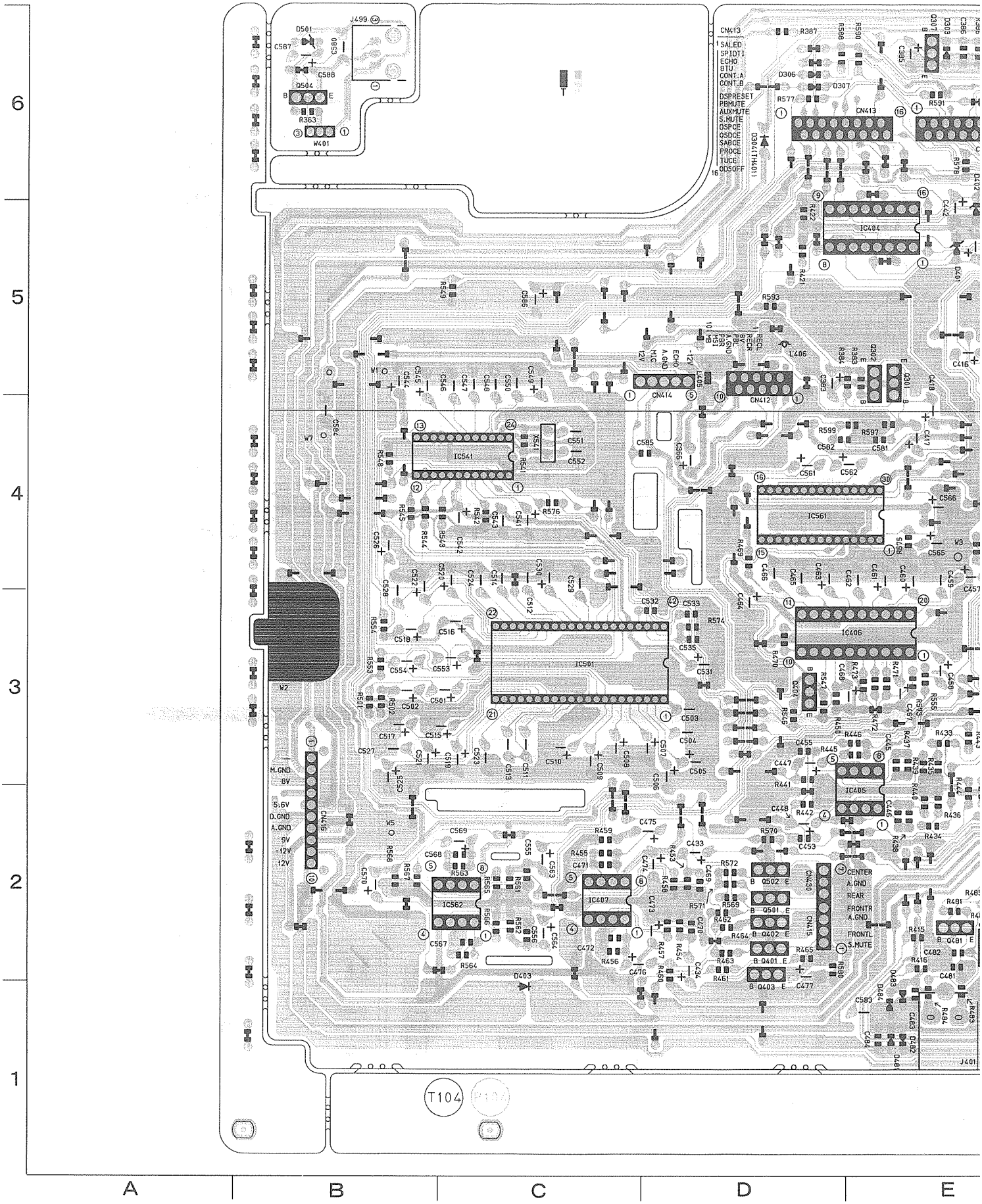
FM Signal

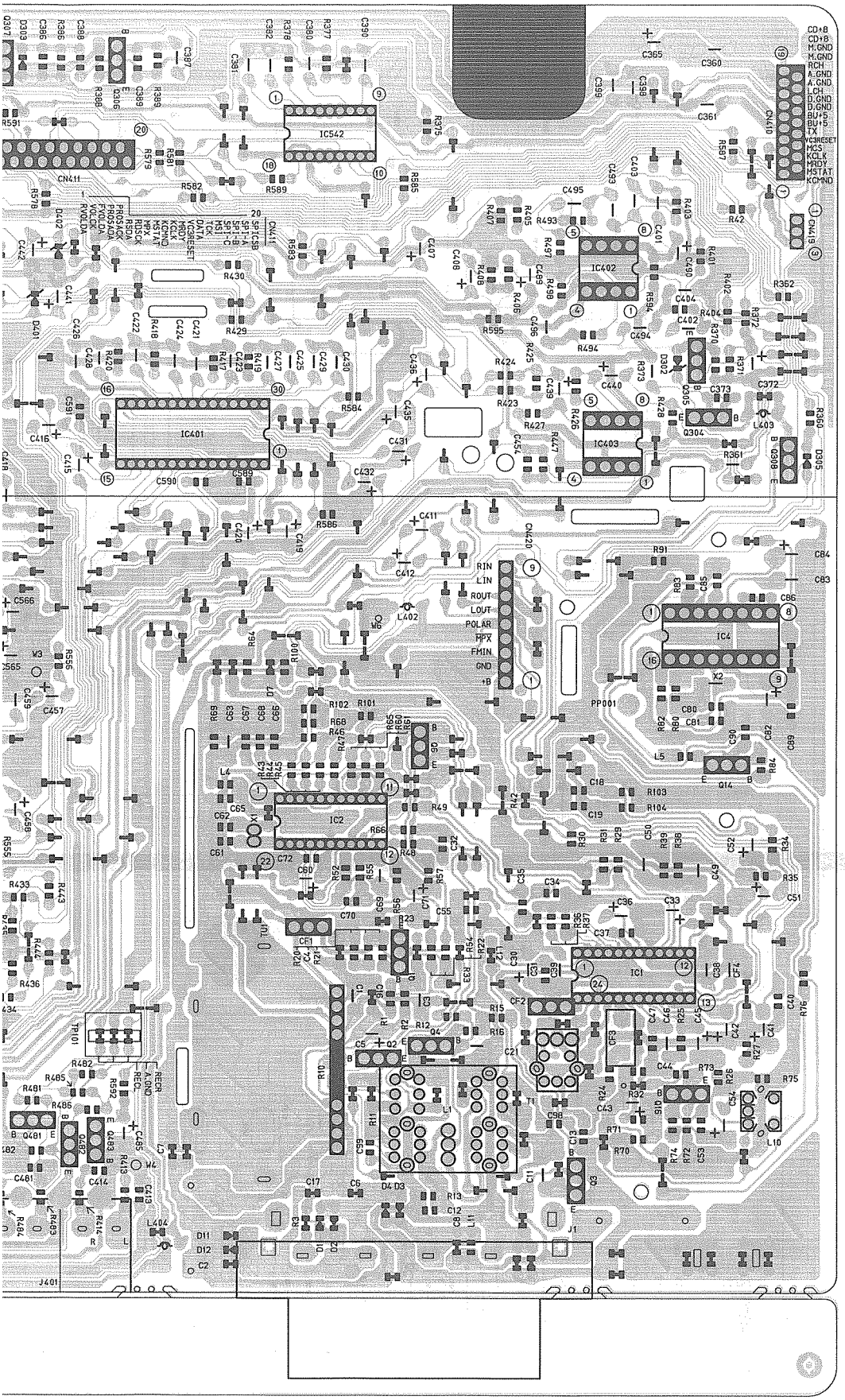
AM Signal

E F G H I

Printed Circuit Board

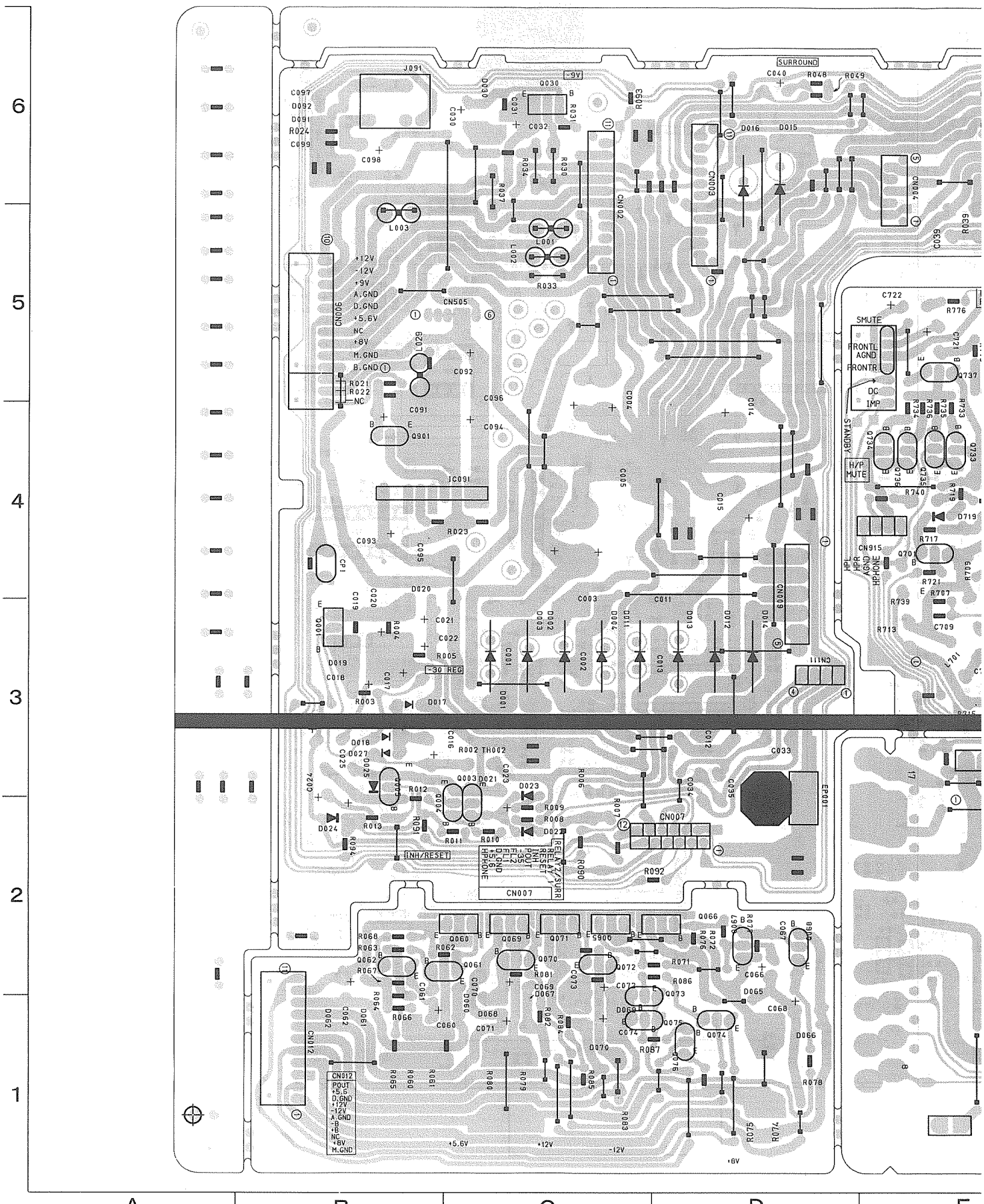
■ Main Board



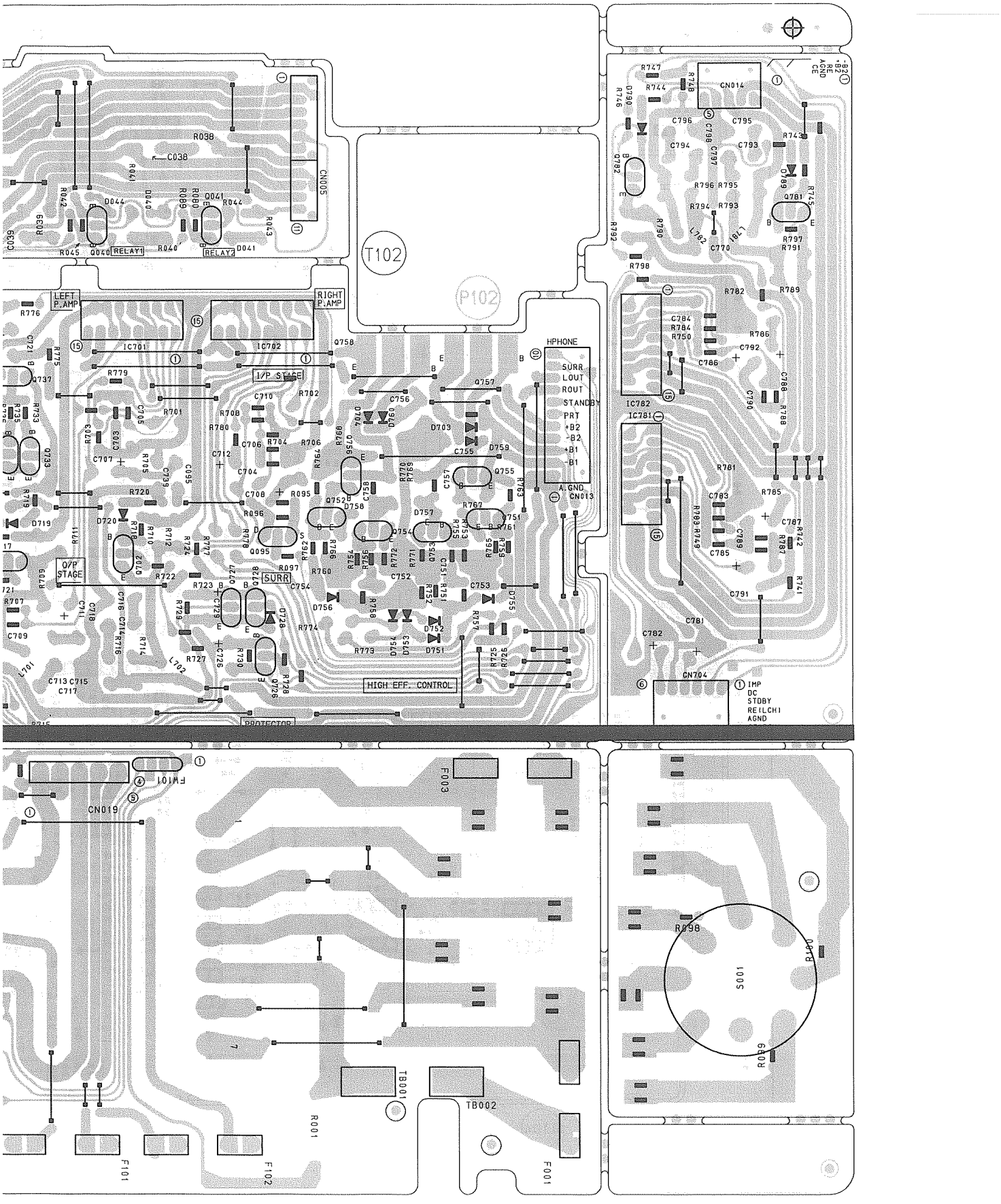


E F G H I

■ Power Amplifier Board

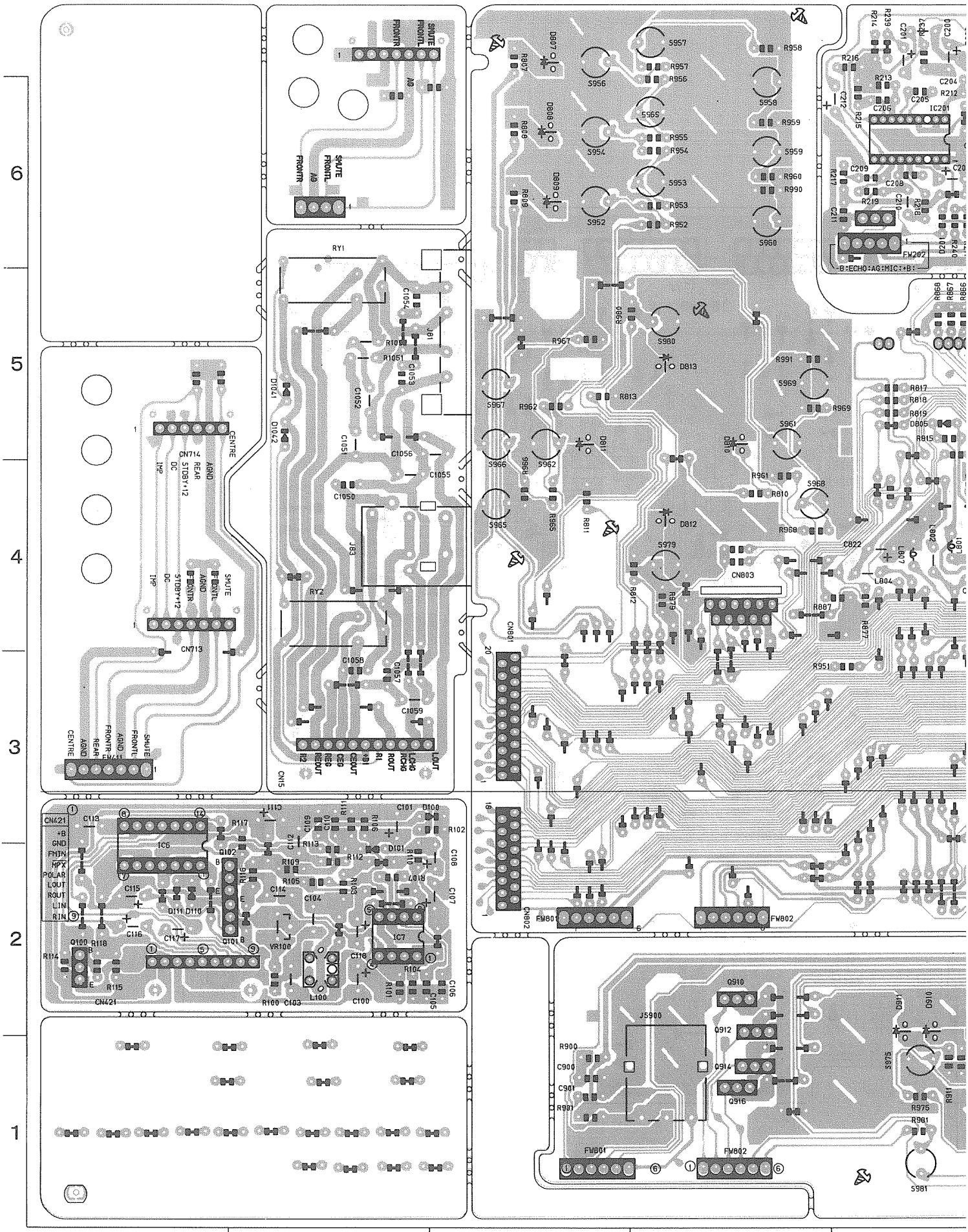


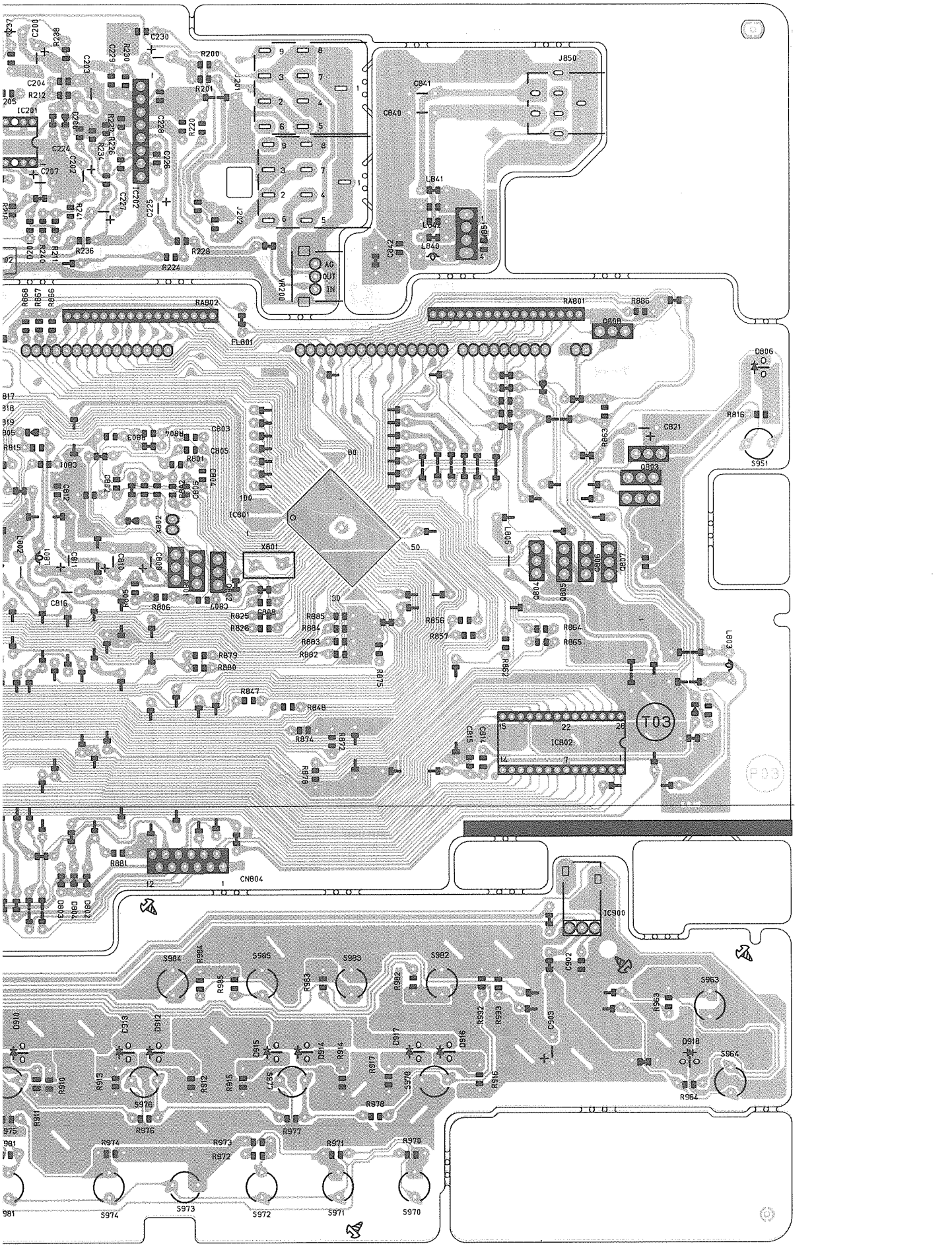
CA-D702T/D752TR



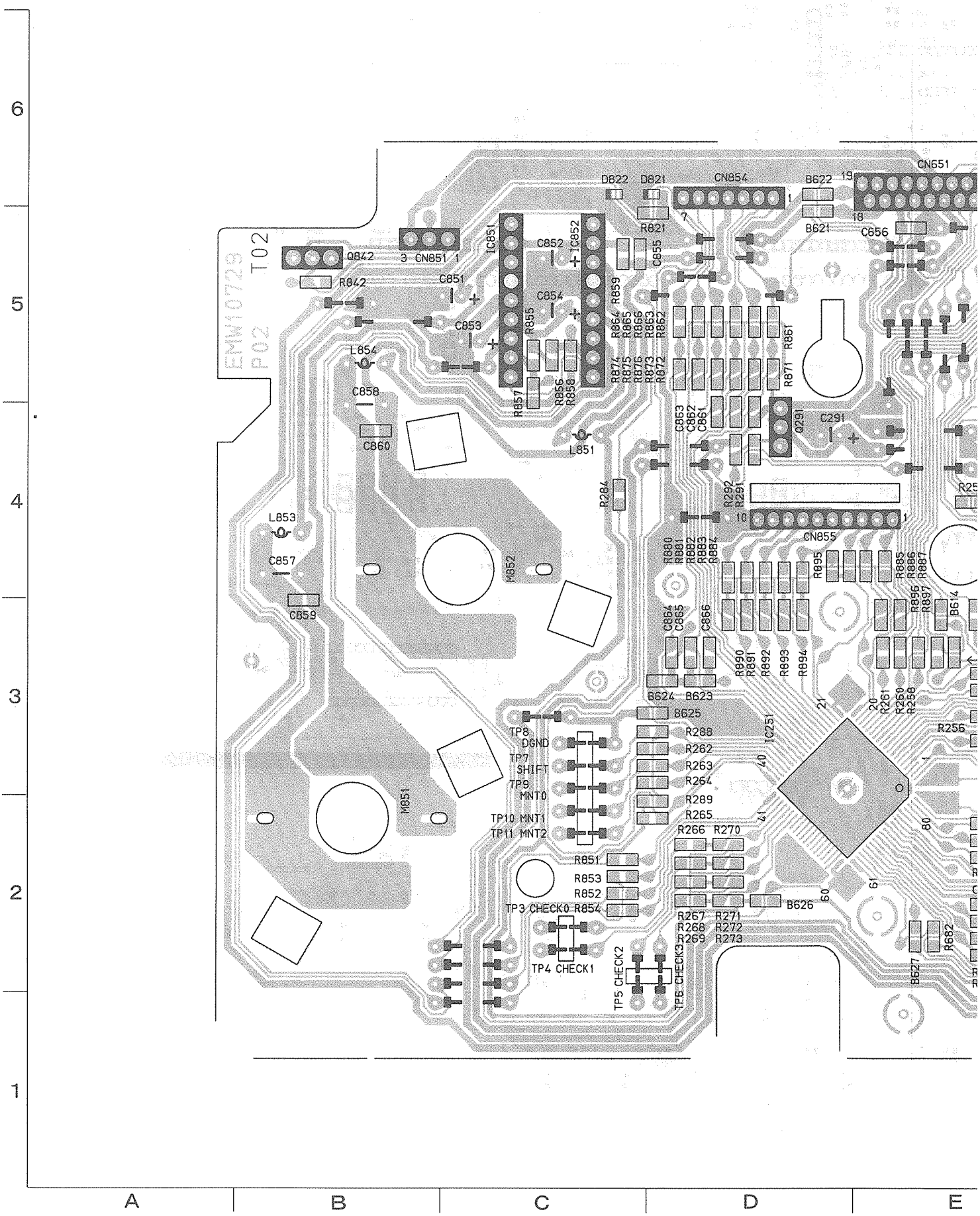
E F G H I

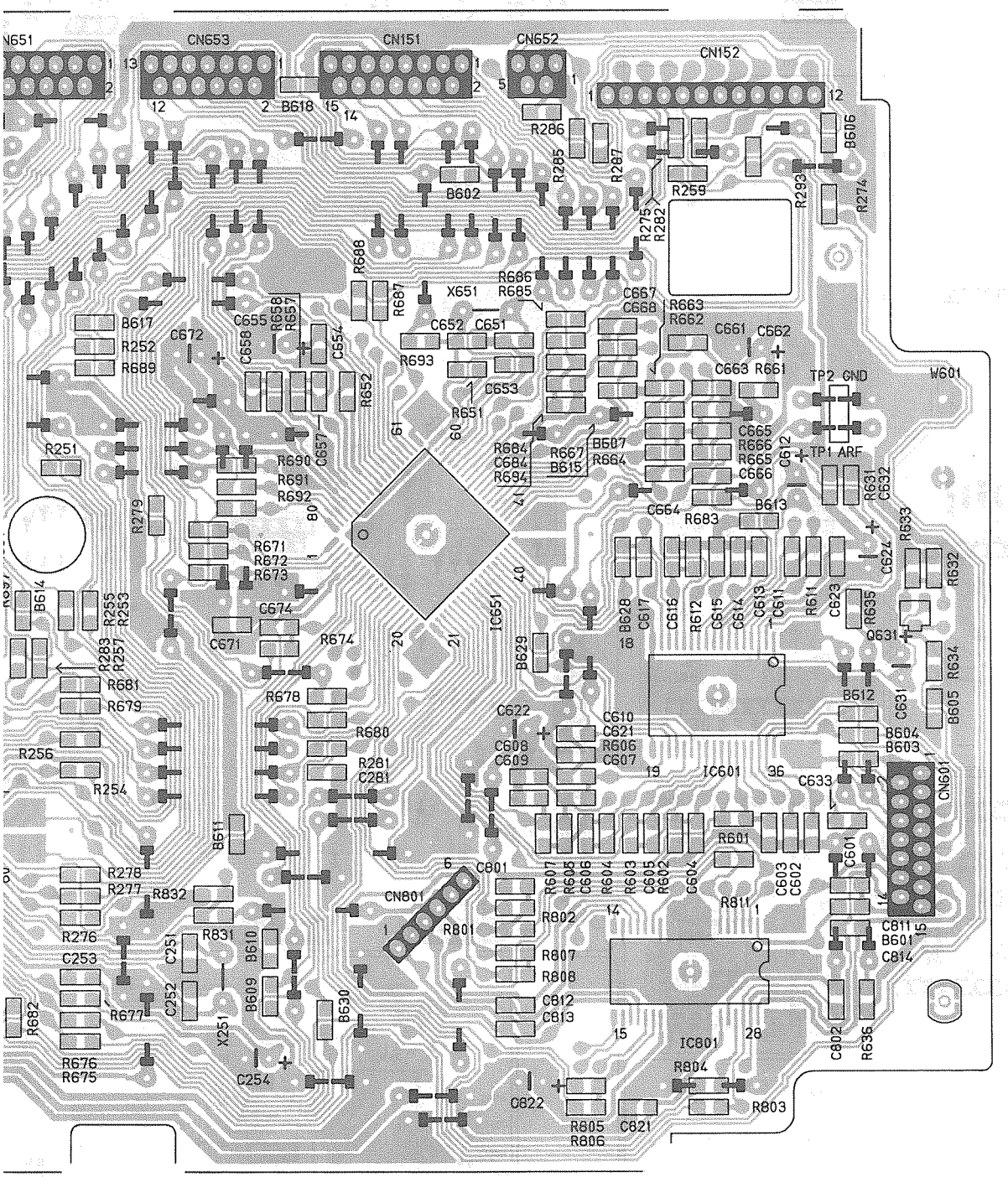
System Control Operation Switch Board




IC201
IC202
IC801
IC802
IC900
CN804
J850
J201
J202
VR200
RA801
RA802
FL801
X801
X802
T03
P03
E
F
G
H
I

CD Servo Changer Mechanism Control Board

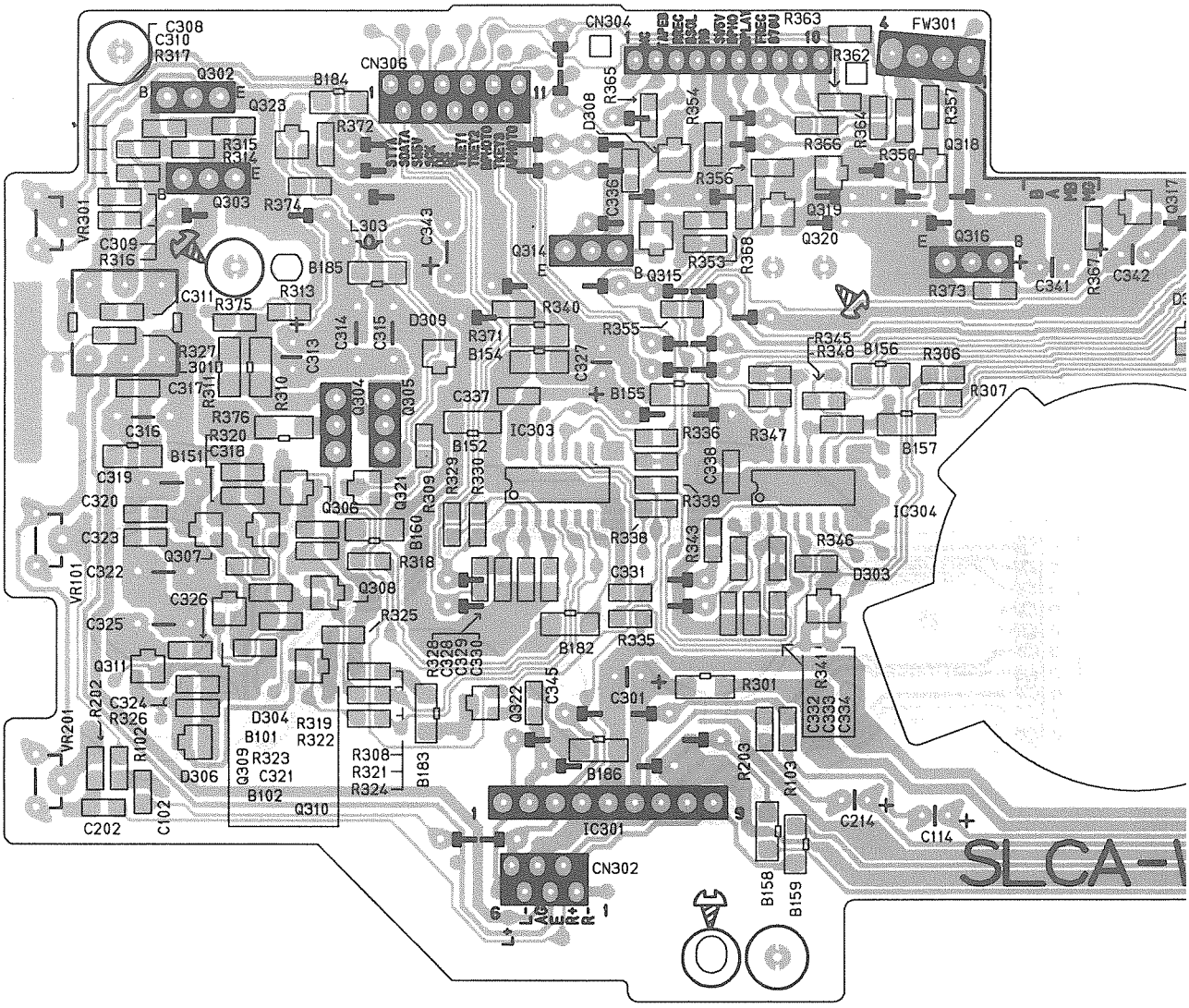



CN651
CN653
CN151
CN652
CN152
B618
B602
R286
R285
R287
R259
R293
R274
B606
R275
R282
R686
R685
X651
C667
C668
R663
R662
C661
C662
C663
R661
TP2 GND
W601
R688
R687
C655
R658
R657
C658
C554
C672
B617
R252
R689
C652
C651
R693
C653
R652
R651
C557
R690
R691
R692
R684
C684
R694
R667
B615
B607
R664
C665
R666
R665
C666
C612
TP1 ARF
R631
C532
C664
R683
B613
R633
C624
R632
R251
R279
R671
R672
R673
C674
C671
R674
R678
R680
R681
R679
R256
R254
R255
R253
R283
R257
B614
IC651
B628
C617
C616
R612
C615
C614
C613
C611
R611
C623
R635
Q631
B629
B612
C631
B634
B605
C622
C610
C621
R606
C607
C608
C609
IC601
C633
CN601
R601
C601
R607
R608
C606
R604
R603
C605
R602
C604
C603
C602
R811
B604
B603
R278
R277
R832
R276
C253
R677
R682
R676
R675
C251
C252
R831
B610
B609
X251
C254
B630
B611
CN801
R801
R802
R807
R808
C812
C813
C822
R805
R806
C621
IC801
R804
R803
C811
B601
C814
C802
R636

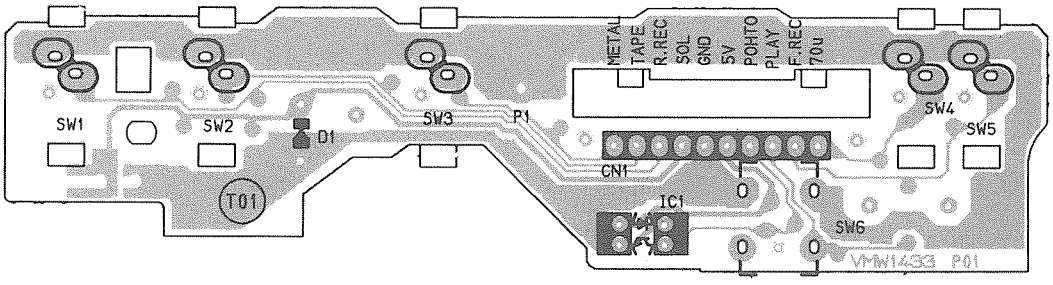
E	F	G	H	I

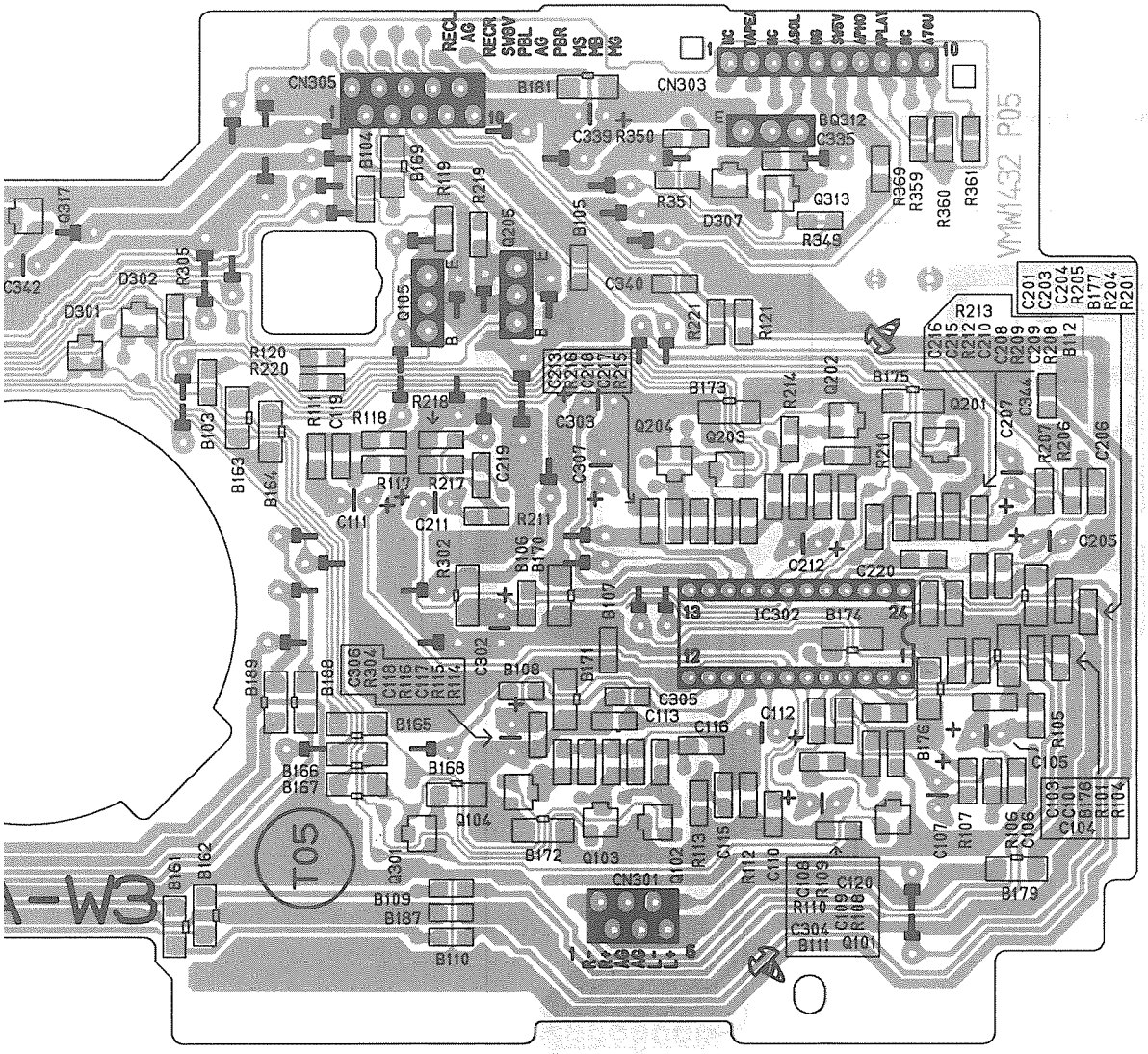
Head Amplifier Mechanism Control Board & Reelpulse Board

Head Amplifier Mechanism Control Board



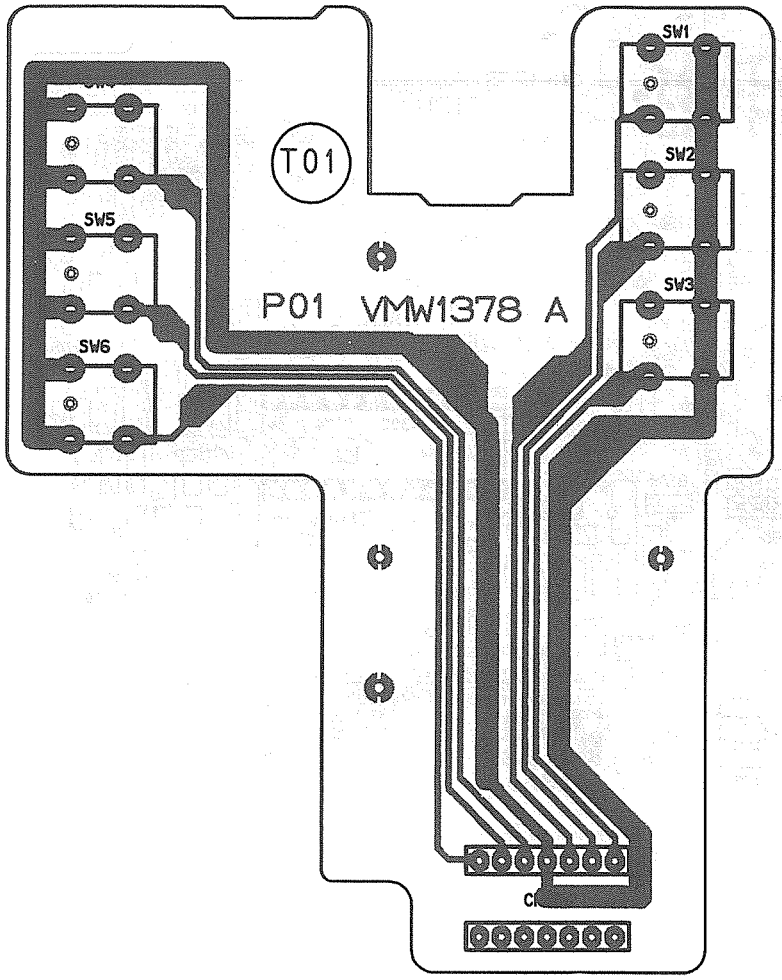
ReelPulse Board



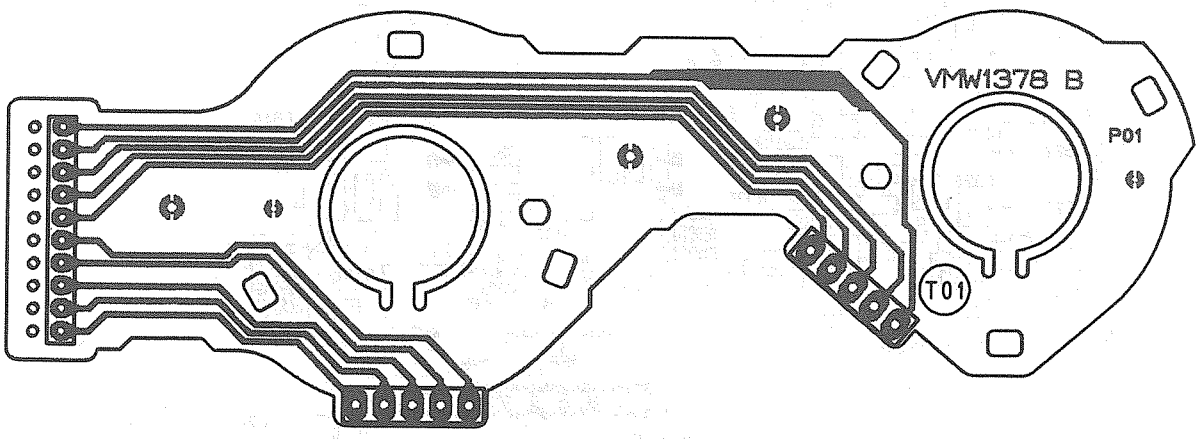

CN305
CN303
IC302
CN301
Q312
Q313
Q101
Q102
Q103
Q104
Q105
Q201
Q202
Q203
Q204
Q205
Q301
Q317
D301
D302
D307
T05
VMM1432 P05

■ CD Tray Select Board & Cam Switch Board

■ CD Tray Select Board



■ **Cam Switch Board**



PARTS LIST

[CA-D702T/D752TR]

1.Those parts can not to sent as a rule that has not printed or be displayed 「—」 on the parts list.
2. The printed circuit board will be not sent as a rule.
3. ⚠ Parts are safety assurance parts. When replacing those parts, make sure to use to specified one.
4. All printed circuit boards and its assemblies are not available as service parts.

Area Suffix

CA-D702T

U	Other Areas
UT	Taiwan
US	Singapore
UB	Hong Kong
UP	Korea
UX	Saudi arabia
A	Austraria

CA-D752TR

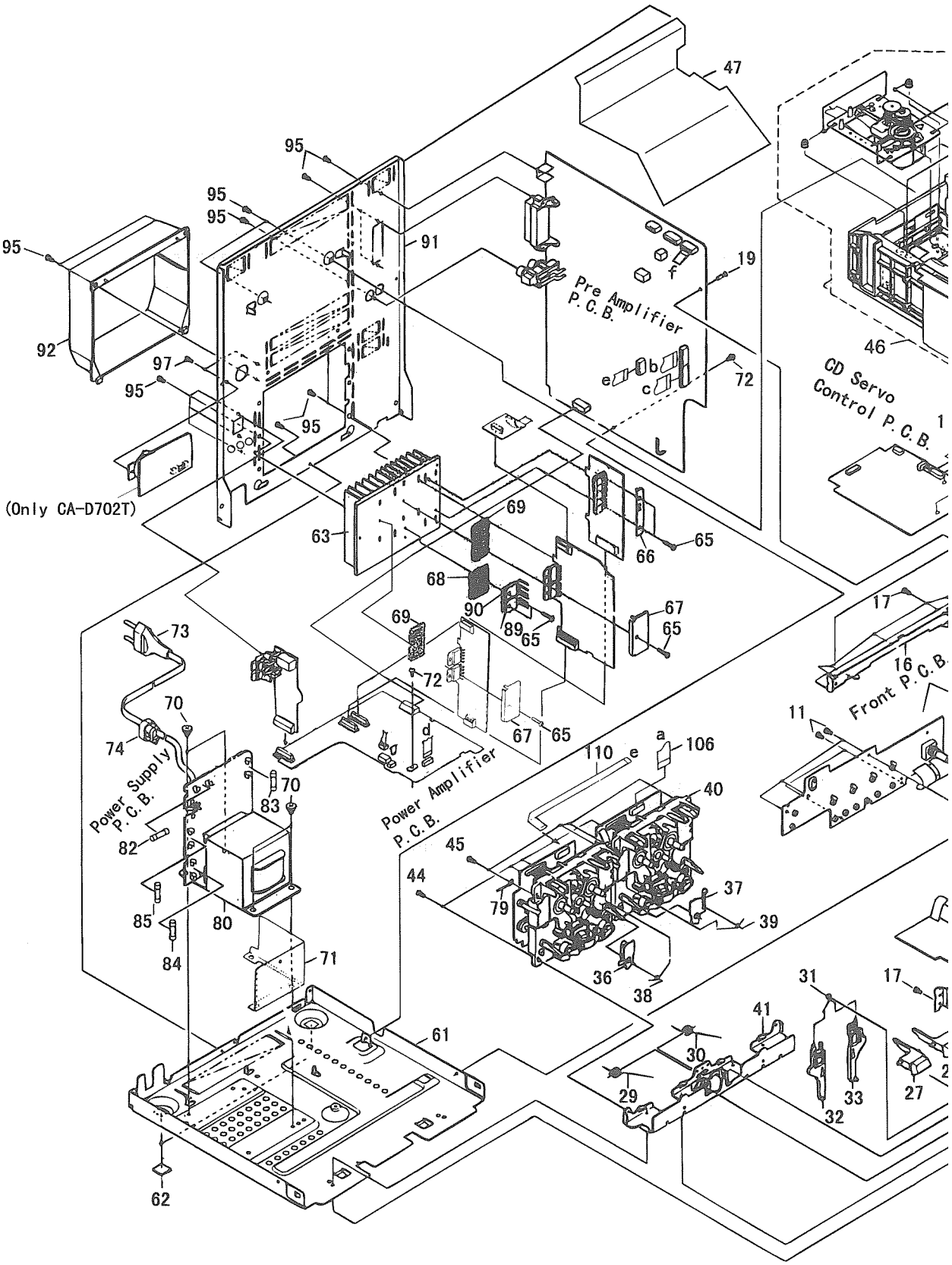
B	U.K
E	Continental Europe
EN	Northan Europe
EE	Eastern Europe

- Contents -

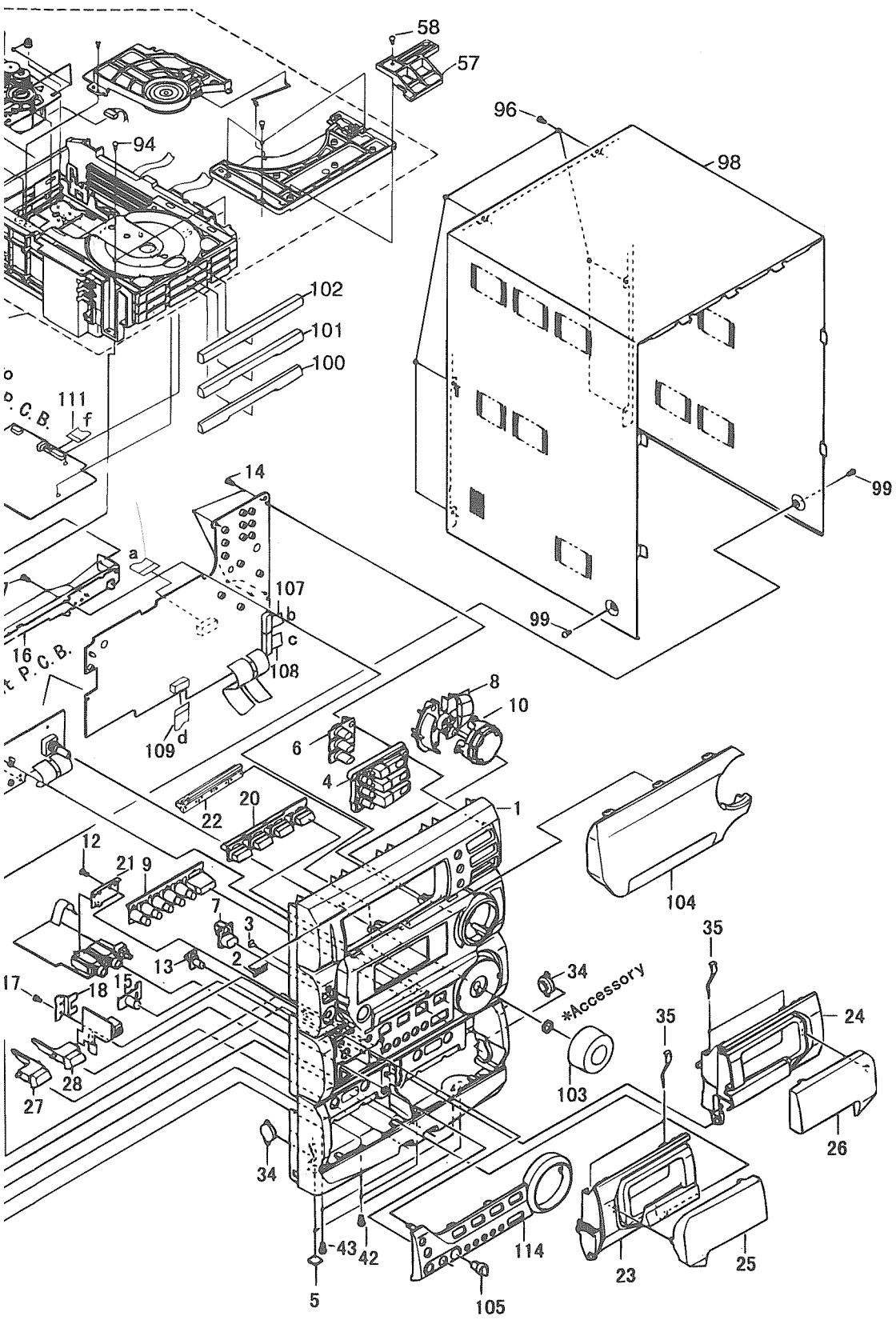
Exploded View of General Assembly and Parts List ---------- 3- 3
Exploded View of CD Changer Mechanism and Parts List ---------- 3- 5
Exploded View of CD Mechanism and Parts List ---------- 3- 7
Exploded View Cassette Mechanism and Parts List---------- 3- 8
Electrical Parts List ---------- 3-10
Power Supply & Amplifier P.C.B. ---------- 3-10
Pre Amplifier & Tuner P.C.B. ---------- 3-13
System Micon & Operation P.C.B. ---------- 3-18
CD Servo Control P.C.B. ---------- 3-22
CD Select Switch P.C.B. ---------- 3-23
Head Amp & Mechanism Control P.C.B.---------- 3-24
Reel Pulse P.C.B. ---------- 3-25
Reel Pulse P.C.B. ---------- 3-25
Packing Materials and Accessories Parts List ---------- 3-26

General Exploded View and Parts List

Block No. M 1 M



M 1 M M


58
57
96
98
94
102
101
100
111
f
C. B.
14
99
a
107
b
c
16
P. C. B.
108
109
d
8
10
6
4
22
20
1
12
21
9
7
3
2
13
17
18
15
28
27
34
*Accessory
103
104
35
24
26
34
43
42
5
114
105
23
25

E	F	G	H	I

BLOCK NO. M1MM□□□

⚠	REF.	PARTS NO.	PARTS NAME	REMARKS	QTY	SUFFIX	CLR
	1	GV10001-005AKP	FRONT PANEL		1		
	2	E406971-001SM	JVC MARK		1		
	3	GV40003-001AKP	STBY.INDICATOR		1		
	4	GV20009-002AKP	CD BUTTON		1		
	5	E75896-001	SPACER		2		
	6	GV30008-002AKP	DISC BUTTON	ATTACH TO CD BT	1		
	7	GV30010-004AKP	POWER BUTTON		1		
	8	GV20006-001AKP	SOUND BUTTON		1		
	9	GV30009-002BKP	CONTROL BUTTON	CA-D752TR	1		
		GV30009-002BKP	CONTROL BUTTON	CA-D702T	1		
	10	GV30018-003BKP	SEARCH BTN.ASSY		1		
	11	SDSF2608Z	SCREW	SWITCH BOARD	5		
	12	SDSF2608Z	SCREW	ONLY CA-D702T	1		
	13	GV30016-002AKP	PUSH BUTTON		1		
	14	SDSF2608Z	SCREW	MICOM BOARD	4		
	15	GV30017-002AKP	PUSH BUTTON		1		
	16	GV30003-001AKP	STAY BRACKET		1		
	17	SDSF2608Z	SCREW		7		
	18	GV40001-001AKP	H.P BRACKET		1		
	19	FMYH4004-001	PLASTIC RIVET	MAIN BOARD&BKT.	1		
	20	GV30013-001AKP	SOURCE BUTTON		1		
	21	GV40004-001AKP	MIC BRACKET		1		
	22	GV30012-001AKP	RDS BUTTON	ONLY CA-D752TR	1		
	23	GV20001-004AKP	CASS HOLDER (L)		1		
	24	GV20002-004AKP	CASS HOLDER (R)		1		
	25	GV20003-001AKP	CASS LENS (L)		1		
	26	GV20004-001AKP	CASS LENS (R)		1		
	27	GV30014-005AKP	EJECT BUTTON(A)		1		
	28	GV30015-005AKP	EJECT BUTTON(B)		1		
	29	FMKW4009-001	HOLDER SPRING A		1		
	30	FMKW4010-001	HOLDER SPRING B		1		
	31	FMKW4011-001	SPRING	FOR EJECT LEVER	1		
	32	FMKS3002-002KP	EJECT LEVER(A)		1		
	33	FMKS3003-002KP	EJECT LEVER(B)		1		
	34	VYH7779-00B	DUMPER ASS'Y		2		
	35	VKY4180-001	CASSETTE SPRING		4		
	36	FMKL4012-003	EJECT SAFETY(A)		1		
	37	FMKL4013-001	EJECT SAFETY(B)		1		
	38	FMKW4007-001	SPRING (A)	EJECT SAFETY A	1		
	39	FMKW4008-001	SPRING (B)	EJECT SAFETY B	1		
	40	----------	CASSETTE MECHA		1		
	41	FMKL2002-001	HOLDER BRACKET		1		
	42	SBSG3010Z	T.SCREW	F.P.TO H.BRKT.	2		
	43	SBSG3010Z	T.SCREW	F.P.TO CHS.BASE	2		
	44	SBSG3010Z	T.SCREW	MECHA & H.BRKT.	4		
	45	SBSF3010Z	SCREW	MECHA & F.PANEL	4		
	46	----------	CHENGER MECHA		1		
	47	GV30022-001A	PROTECT SHEET		1		
	57	E309662-001	DISC STOPPER		1		
	58	SBSF3008Z	SCREW	FOR DISC STOPPE	1		
	61	GV10003-001AKP	CHASSIS BASE		1		
	62	E75896-006	FELT SPACER	CHAS.BASE FOOT	2		
	63	GV30006-001AKP	HEAT SINK		1		
	65	SBSG3014CC	T.SCREW		6		
	66	E406969-002SM	LEAF SPRING		1		

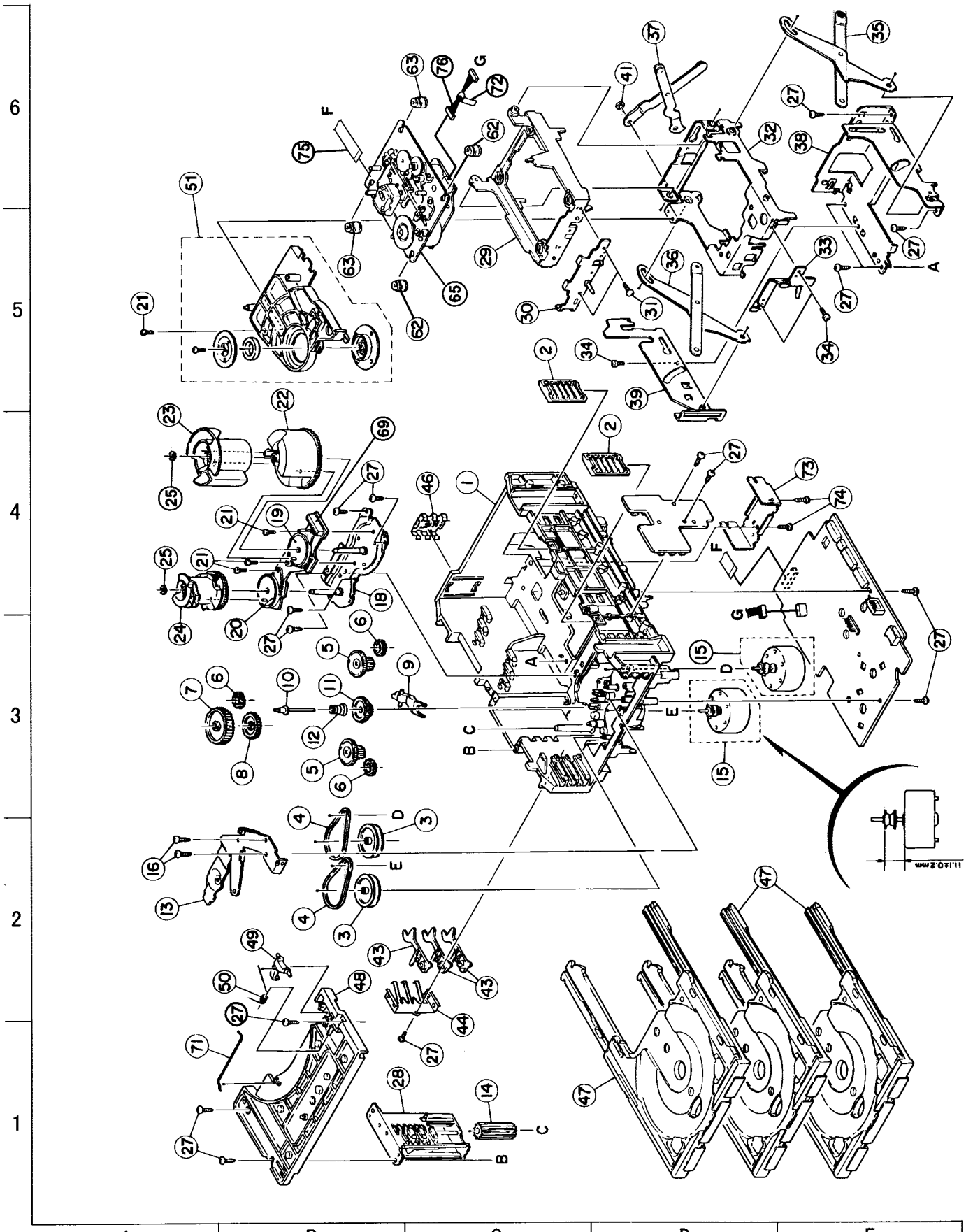
BLOCK NO. M1MM

⚠	REF.	PARTS NO.	PARTS NAME	REMARKS	QTY	SUFFIX	CLR
	67	FMKL4007-001	BRACKET	FOR POWER IC	2		
	68	FMPK4004-001	MICA SHEET		1		
	69	FMPK4003-001	MICA SHEET		2		
	70	E65389-002	SPECIAL SCREW		4		
	71	E409015-001SM	SHIELD PLATE		1		
	72	GBSG3008CC	T.SCREW	M.BOARD & C.BAS	2		
⚠	73	QMPK090-205-JN	POWER CORD	CA-D702T	1	U,US	
⚠		QMPK090-205-JN	POWER CORD	CA-D752TR	1	E,EE,EN	
⚠		QMP7520-200	POWER CORD	CA-D702T	1	UT,UX	
⚠		QMP5530-0085BS	POWER CORD	CA-D702T	1	UB	
⚠		QMPN090-200-JC	POWER CORD	CA-D752TR	1	B	
⚠		QMPG020-244-JC	POWER CORD	CA-D702T	1	A	
⚠		EMP7000-200	POWER CORD	CA-D702T	1	UP	
⚠	74	QHS3771-108	CORD STOPPER		1		
	79	VKZ4001-110	WIRE HOLDER		1		
⚠	80	QQT0157-002	POWER TRANSF	T001 CA-D752TR	1		
⚠		QQT0157-003	POWER TRANS	T001 CA-D702T	1		
⚠	82	QMF51E2-1R25	FUSE	F001 CA-D752TR	1		
⚠		QMF51E2-1R25	FUSE	F001 CA-D702T	1	UP	
⚠		QMF51E2-2R5	FUSE	F001 CA-D702T	1	A,U,UB	
⚠		QMF51E2-2R5	FUSE	F001 CA-D702T	1	US,UX,UT	
⚠	83	QMF51E2-1R25	FUSE	F003 CA-D702T	1		
⚠	84	QMF51E2-3R15J1	FUSE	F101	1		
⚠	85	QMF51E2-3R15J1	FUSE	F102	1		
	89	2SC4467/OPY/-F1	TRANSISTOR	Q757	1		
	90	2SA1694/OPY/-F1	TRANSISTOR	Q758	1		
	91	GV10004-016AKP	REAR PANEL	CA-D702T	1	UT	
		GV10004-017AKP	REAR PANEL	CA-D752TR	1	B,E,EN	
		GV10004-018AKP	REAR PANEL	CA-D752TR	1	EE	
		GV10004-014AKP	REAR PANEL	CA-D702T	1	A,U,US,UX,UB	
		GV10004-015AKP	REAR PANEL	CA-D702T	1	UP	
	92	E207356-001SM	REAR COVER		1		
	94	SBSG3008Z	T.SCREW	C3 & STAY BRKT.	2		
	95	E73273-003	SPECIAL SCREW		15		
	96	E73273-003	SPECIAL SCREW		6		
	97	E73273-003	SPECIAL SCREW	CA-D702T	2		
	98	GV10002-008A(S)	METAL COVER		1		
	99	SBSB3006M	T.SCREW		2		
	100	E209153-004SMKP	CD FITTING	DISC 1	1		
	101	E209155-003SMKP	CD FITTING	DISC 2	1		
	102	E209157-004SMKP	CD FITTING	DISC 3	1		
	103	E310080-231SMKP	M.VOL.KNOB		1		
	104	GV20005-007AKP	WINDOW SCREEN	CA-D752T	1		
		GV20005-008AKP	WINDOW SCREEN	CA-D702T	1		
	105	E408765-005SMKP	MIC KNOB	CA-D602T	1		
	106	VWF1211-15TTB	CARD WIRE	FMB-SLC	1		
	107	VWF1220-10TTB	CARD WIRE	FMB-MAIN	1		
	108	VWF1216-10TTB	CARD WIRE	FMB-MAIN	1		
	109	VWF1212-25TTB	TAF CARD	FMB-FMH	1		
	110	VWF1210-20TTB	CARD WIRE	MAIN-SLC	1		
	111	VWF1019-20TTA	CARD WIRE	MAIN-VC3	1		
	114	GV20007-005AKP	ORNAMENT	CA-D752T	1		
		GV20007-006AKP	ORNAMENT	CA-D702T	1		

CD Changer Mechanism and Parts List

Block No. M 2 M M

VC3-1M



■Parts List

Block No. M2MM

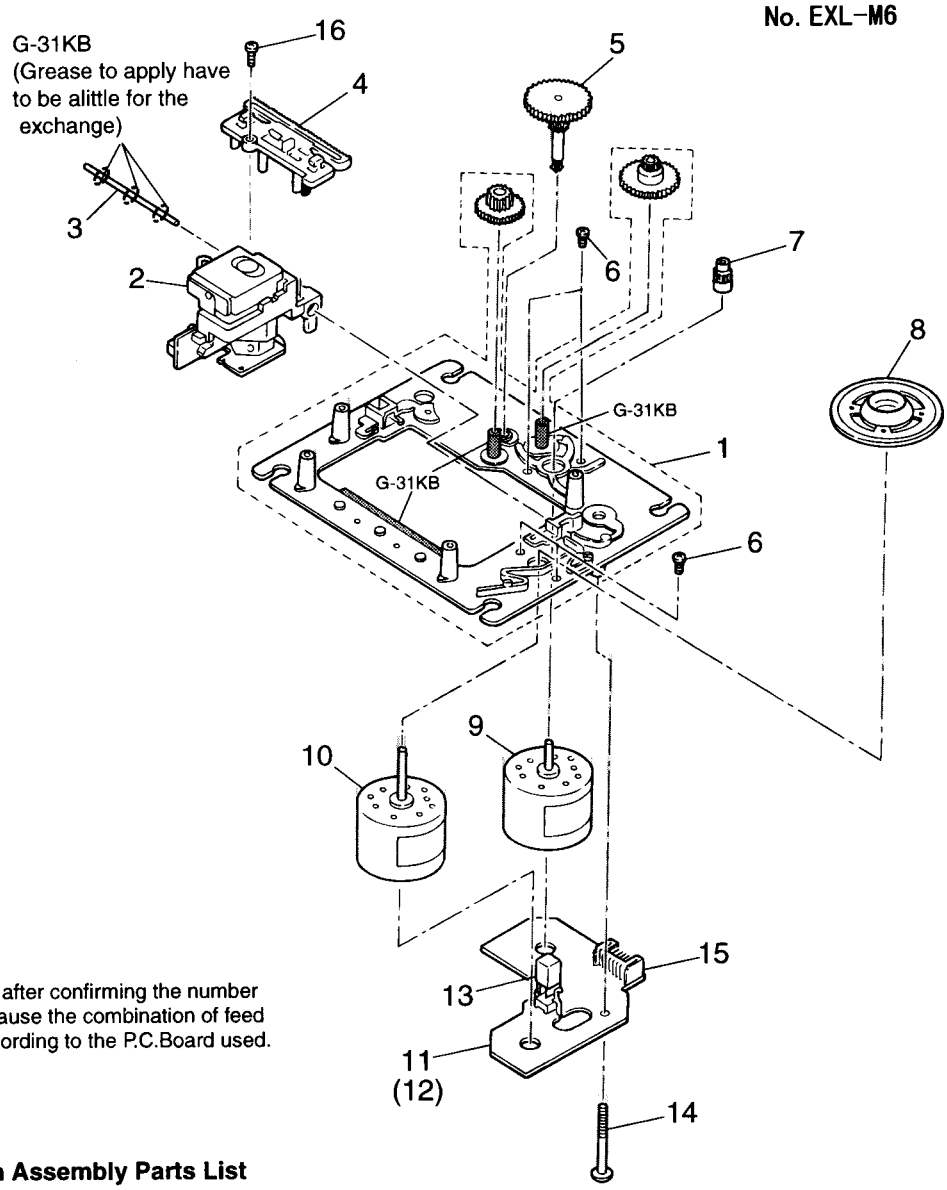
⚠	Item	Parts Number	Parts Name	Q'ty	Description	Area
	1	VKS1144-003	CHASSIS BASE	1		
	2	VKS3698-003	TRAY GUIDE	2		
	3	VKS5532-003	GEAR	2		
	4	VKB3000-164	DRIVE BELT	2		
	5	VKS5505-003	GEAR	2		
	6	VKS5506-002	GEAR	3		
	7	VKS5507-002	GEAR	1		
	8	VKS5508-002	GEAR	1		
	9	VKS5510-003	SELECT LEVER	1		
	10	VKH5769-001	GEAR STUD	1		
	11	VKS5511-002	GEAR	1		
	12	VKW5155-003	COMPRESS SPRING	1	SELECT GEAR	
	13	VKM3846-002	GEAR BRACKET	1		
	14	VKS5509-002MM	CYLINDER GEAR	1		
	15	MSN5D257A-SA2	DC MOTOR	2		
	16	QYSPSPD2616Z	SCREW	2	DC MOTOR ASS'Y	
	18	VKM3825-00AMM	GEAR BASE	1		
	19	VKZ3172-00ASS	CAM SWITCH (R)	1		
	20	VKZ3173-00ASS	CAM SWITCH (L)	1		
	21	QYSPST2606Z	SCREW	4		
	22	VKS2263-002MM	DRIVING CAM	1		
	23	VKS2264-002MM	DRIVING CAM	1		
	24	VKS2265-002MM	SUB GEAR	1		
	25	WDL316050MM	SLIT WASHER	2		
	27	QYSBSF2608Z	TAPPIMG SCREW	16		
	28	VKS3702-00FMM	DRIVE UNIT	1		
	29	VKS2247-004	MECHA HOLDER	1		
	30	VKL7767-00B	MECHA BRACKET	1		
	31	QYSBSF2606Z	SCREW	2	BRACKET	
	32	VKM3860-00A	MECHA HOLDER	1		
	33	VKL7802-00C	MECHA HOLDER	1		
	34	QYSDST2604Z	SCREW	3		
	35	VKL7810-00A	LIFTER	1		
	36	VKL7811-00A	LIFTER	1		
	37	VKL7812-00A	LIFTER	1		
	38	VKL2732-002	LIFTER BASE	1		
	39	VKM3857-001	LIFTER BRACKET	1		
	41	WDL266035-2	SLIT WASHER	1		
	43	VKS5514-002MM	ROCK LEVER	3		
	44	VKY3133-002MM	RETURN SPRING	1		
	46	VKY3134-003MM	SPRING	1		
	47	VKS2252-00E	TRAY ASS'Y	3		
	48	VKS2250-003	TRAY BRACKET	1		
	49	VKS5515-002	TRAY STOPPER	1		
	50	VKW5156-004	TORSION SPRING	1		
	51	VKS3703-00FMMKP	CLAMPER ASS'Y	1		
	62	FMYH4003-002	INSULATOR	2		
	63	FMYH4003-001	INSULATOR	2		
	65	----------	CD MECHA ASS'Y	1		
	69	QGB2021L1-10	CONNECT TERMINAL	1	CN805	
	71	VKW5187-001	ROD	1		
	72	VYSA1R2-033	SPACER	1	EWS176-008	
	73	LE30611-001A	P.W.B. HOLDER	1	CD P.W.B.	
	74	QYSBSF3008Z	SCREW	2	HOLDER	
	75	QUQ110-1509AJ	FLAT WIRE	1		
	76	EWS176-008	FLAT WIRE	1		

CD Mechanism Ass'y and Parts List

■ Grease Point

Block No. M3MM

No. EXL-M6



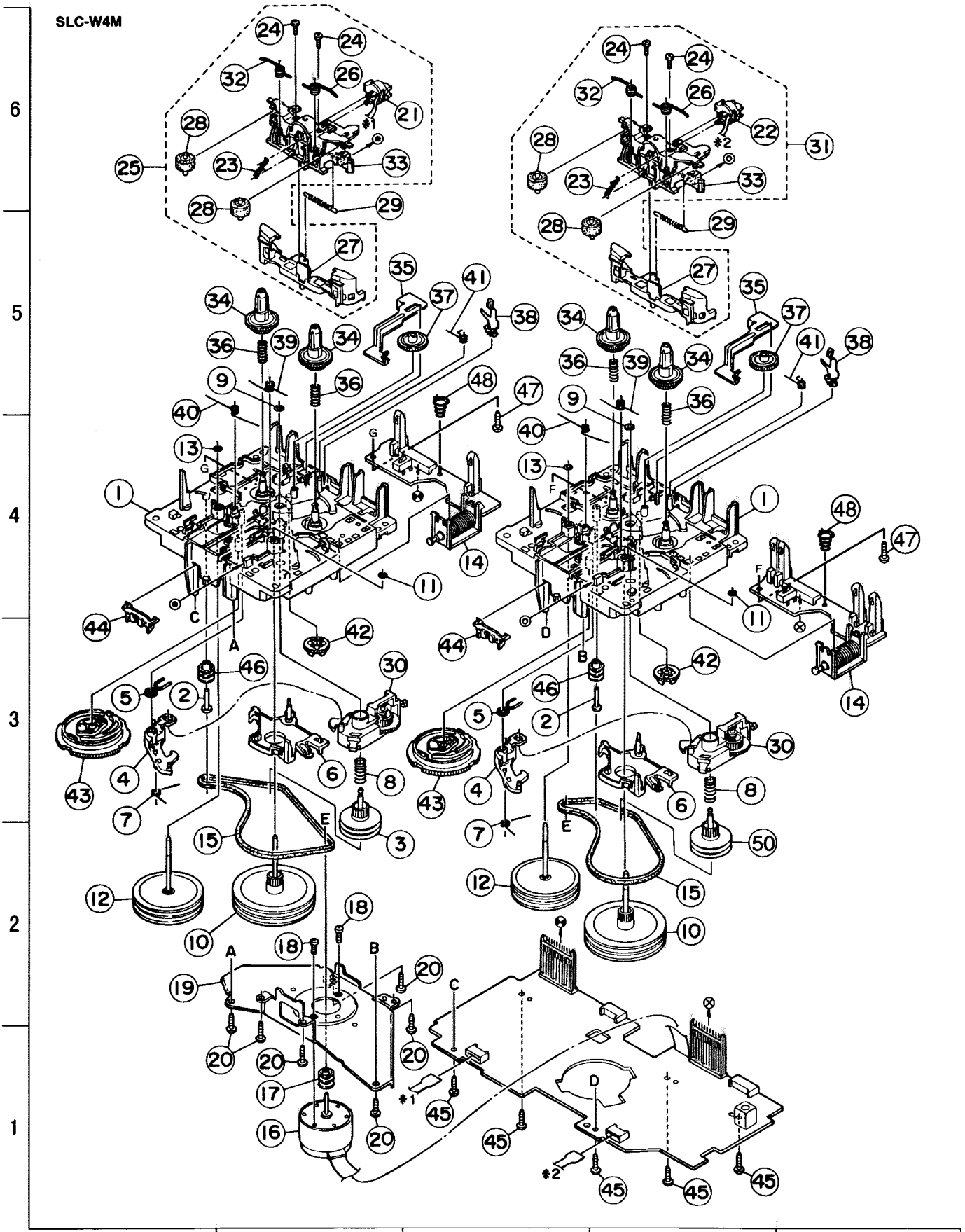
NOTE
Please order moutor after confirming the number of the P.C.Board because the combination of feed motor is different according to the P.C.Board used.

■CD Mechanism Assembly Parts List

⚠	Item	Parts Number	Parts Name	Q'ty	Description	Area
	1	EPB-002PK	MECHA. BASE ASSY	1		
	2	OPTIMA-150S	OPTICAL PICK UP	1		
	3	E407782-001	CD SHAFT	1		
	4	E307746-001	CD RACK	1		
	5	EPB-003A	MECHA GEAR	1		
	6	SDSP2003N	SCREW	4		
	7	E406750-001	PINION GEAR	1		
	8	EPB309173A	TURN TABLE	1		
	9	E406784-001	FEED MOTOR	1	Use the No.11 P.C.Board	
		MDN-4RA3ETA-1	FEED MOTOR	1	Use the No.12 P.C.Board	
	10	E406783-001	SPINDLE MOTOR	1		
	11	EMW10190-001 (S)	P. C. BOARD	1		
	12	EMW10190-221 (S)	P. C. BOARD	1		
	13	ESB1100-005	LEAF SWITCH	1		
	14	E75832-001	SCREW	1		
	15	EMV5109-006B	CONN. TERMINAL	1		
	16	SDSF2006Z	SCREW	1		

Cassette Mechanism & Parts List

Block No. M 4 M M



■ Parts List (Cassette Mechanism Ass'y)

Block No. M4MM

⚠	Item	Parts Number	Parts Name	Q'ty	Description	Area
	1	VKS1165-00F	CHASSIS BASE ASS'Y	2		
	2	VKH5786-002	SHAFT	2		
	3	VKS5603-00C	MAIN PULLY	1		
	4	VKS3785-001MM	F.F/REW ARM	2		
	5	VKW5284-002	SWING SPRING	2		
	6	VKS2278-001	TRIGGER ARM	2		
	7	VKW5301-001	SPRING	2		
	8	VKW5266-001	ELEVATOR SPRING	2		
	9	WDL214025	WASHER	2		
	10	VKF3205-00B	FLY WHEEL	2		
	11	WDL183425	WASHER	2		
	12	VKF3207-00B	FLY WHEER	2		
	13	WDL173525-6	WASHER	2		
	14	VGP2401-00A	SOLENOID	2		
	15	VKB3000-182	CAPSTAN BELT	2		
	16	MSI-5U2LWA	DC MOTOR	1		
	17	VKR4761-001	MOTOR PULLY	1		
	18	QYSPSP2604Z	SCREW	2		
	19	VKM3907-001	JOINT BRACKET	1		
	20	QYSBSF2608Z	TAPPING SCREW	6		
	21	VGH0424-037	ERASE HEAD	1		
	22	VGH0425-544	R/P HEAD	1		
	23	VKW5302-001	HEAD SPRING	2		
	24	VKZ4730-001	SPECIAL SCREW	4		
	25	VKS2279-00C	HEAD MOUNT ASS'Y	1		
	26	VKW5299-001	P.ROLLER SPRING	2		
	27	VKS2277-005	DIRECTION LEVER	2		
	28	VKP4233-00A	PINCH ROLLER	4		
	29	VKW5285-001	RETURN SPRING	2		
	30	VKS3786-00E	CLUTCH ASS'Y	2		
	31	VKS2275-00C	HEAD MOUNT ASS'Y	1		
	32	VKW5300-001	P.ROLLER SPRING	2		
	33	VKS1167-001	HEAD MOUNT BASE	2		
	34	VKS2274-002	REEL GEAR	4		
	35	VKM3906-002	PLAY LEVER	2		
	36	VKW5286-002	BASE SPRING	4		
	37	VKS5559-001	IDLER GEAR	2		
	38	VKY3149-001	CASSETTE SPRING	2		
	39	VKW5279-001	HEAD SPRING	2		
	40	VKW5280-001	HEAD SPRING	2		
	41	VKW5296-001	SPRING	2		
	42	VKS5560-001	IDLER GEAR	2		
	43	VKS1166-003	CONTROL CAM	2		
	44	VKS5577-001	TAPE HOLDER	2		
	45	QYSBSF2608Z	TAPPING SCREW	5	P.C.B.	
	46	VKR4749-001KP	IDLE PULLY	2		
	47	QYSBSF2006Z	SPRING	2		
	48	LV40450-001A	SPRING	2		
	50	VKS5603-00C	MAIN PULLY	1		
		VKS5603-00D	MAIN PULLY	1	#74501～	

■ Electric Parts List (Power Supply & Amplifier P. C. B.)

BLOCK NO. 01

⚠	REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
	C001	QFV82AJ-104	M.CAPA. I.M	.10MF 5% 100V	
	C002	QFV82AJ-104	M.CAPA. I.M	.10MF 5% 100V	
	C003	QFV82AJ-104	M.CAPA. I.M	.10MF 5% 100V	
	C004	QEZ0360-568	E.CAPA	5600MF	
	C005	QEZ0360-568	E.CAPA.	5600MF	
	C011	QFV41HJ-104ZM	TF CAPACITOR	.10MF 5% 50V	
	C012	QFV41HJ-104ZM	TF CAPACITOR	.10MF 5% 50V	
	C013	QFV41HJ-104ZM	TF CAPACITOR	.10MF 5% 50V	
	C014	QETM1VM-338	E CAPACITOR	3300MF 20% 35V	
	C015	QETM1VM-338	E CAPACITOR	3300MF 20% 35V	
	C016	QET41VM-107	E CAPACITOR	100MF 20% 35V	
	C017	QETN1JM-476Z	E CAPACITOR	47MF 20% 63V	
	C018	QET41HM-226	E CAPACITOR	22MF 20% 50V	
	C019	QCVB1CN-103Y	C CAPACITOR	.010MF 30% 16V	
	C020	QET41HM-226	E CAPACITOR	22MF 20% 50V	
	C021	QET41HM-475	E CAPACITOR	4.7MF 20% 50V	
	C022	QET41HM-475	E CAPACITOR	4.7MF 20% 50V	
	C023	QET41HM-225	E CAPACITOR	.47MF 20% 50V	
	C024	QET41HM-105	E CAPACITOR	1.0MF 20% 50V	
	C025	QET41HM-105	E CAPACITOR	1.0MF 20% 50V	
	C030	QETN1EM-226Z	E CAPACITOR	22MF 20% 25V	
	C031	QCVB1CN-103Y	C CAPACITOR	.010MF 30% 16V	
	C032	QETN1EM-226Z	E CAPACITOR	22MF 20% 25V	
	C033	QFV41HJ-224	CAPACITOR	CA-D702T	
	C033	QFLC1HJ-103ZM	M CAPACITOR	CA-D752TR	
	C038	QFLC1HJ-223ZM	M CAPACITOR	CA-D752TR	
	C039	QFLC1HJ-223ZM	M CAPACITOR	CA-D752TR	
	C045	QET41EM-476	E CAPACITOR	47MF 20% 25V	
	C060	QETN1EM-226Z	E CAPACITOR	22MF 20% 25V	
	C061	QCF11HP-103	C CAPACITOR	.010MF +80:-20%	
	C062	QETN1EM-226Z	E CAPACITOR	22MF 20% 25V	
	C066	QETN1EM-226Z	E CAPACITOR	22MF 20% 25V	
	C067	QCF11HP-103	C CAPACITOR	.010MF +80:-20%	
	C068	QETN1EM-226Z	E CAPACITOR	22MF 20% 25V	
	C069	QETN1EM-226Z	E CAPACITOR	22MF 20% 25V	
	C070	QCF11HP-103	C CAPACITOR	.010MF +80:-20%	
	C071	QETN1EM-226Z	E CAPACITOR	22MF 20% 25V	
	C072	QETN1EM-226Z	E CAPACITOR	22MF 20% 25V	
	C073	QCF11HP-103	C CAPACITOR	.010MF +80:-20%	
	C074	QETN1EM-226Z	E CAPACITOR	22MF 20% 25V	
	C703	QCBB1HK-101Y	C CAPACITOR	100PF 10% 50V	
	C704	QCBB1HK-101Y	C CAPACITOR	100PF 10% 50V	
	C705	QCBB1HK-181Y	C CAPACITOR	180PF 10% 50V	
	C706	QCBB1HK-181Y	C CAPACITOR	180PF 10% 50V	
	C707	QET41EM-476	E CAPACITOR	47MF 20% 25V	
	C708	QET41EM-476	E CAPACITOR	47MF 20% 25V	
	C709	QCS11HJ-100	C CAPACITOR	10PF 5% 50V	
	C710	QCS11HJ-100	C CAPACITOR	10PF 5% 50V	
	C711	QET41HM-226	E CAPACITOR	22MF 20% 50V	
	C712	QET41HM-226	E CAPACITOR	22MF 20% 50V	
	C713	QFV41HJ-104ZM	TF CAPACITOR	.10MF 5% 50V	
	C714	QFV41HJ-104ZM	TF CAPACITOR	.10MF 5% 50V	
	C715	QFV41HJ-104ZM	TF CAPACITOR	.10MF 5% 50V	
	C716	QFV41HJ-104ZM	TF CAPACITOR	.10MF 5% 50V	
	C721	QTE1V06-106Z	E.CAPA. I.M		

BLOCK NO. 01

⚠	REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
	C722	QTE1V06-106Z	E CAPACITOR		
	C726	QET41EM-106	E CAPACITOR	10MF 20% 25V	
	C729	QET41CM-476	E CAPACITOR	47MF 20% 16V	
	C739	QFLC1HJ-103ZM	M CAPACITOR	.010MF 5% 50V	
	C751	QCY31HK-272Z	C.CAPA. I.M	2700PF 10% 50V	
	C752	QCY31HK-272Z	C.CAPA. I.M	2700PF 10% 50V	
	C753	QCY31HK-472Z	C.CAPA. I.M	4700PF 10% 50V	
	C754	QCY31HK-472Z	C.CAPA. I.M	4700PF 10% 50V	
	C755	QFV41HJ-105	TF.CAPA. I.M XX	1.0MF 5% 50V	
	C756	QFV41HJ-105	TF.CAPA. I.M XX	1.0MF 5% 50V	
	C757	QCXB1CM-152Y	C CAPACITOR	1500PF 20% 16V	
	C758	QCXB1CM-152Y	C CAPACITOR	1500PF 20% 16V	
	C781	QETN1HM-225Z	E CAPACITOR	2.2MF 20% 50V	
	C782	QETN1HM-225Z	E CAPACITOR	2.2MF 20% 50V	
	C783	QCBB1HK-101Y	C CAPACITOR	100PF 10% 50V	
	C784	QCBB1HK-101Y	C CAPACITOR	100PF 10% 50V	
	C785	QCBB1HK-181Y	C CAPACITOR	180PF 10% 50V	
	C786	QCBB1HK-181Y	C CAPACITOR	180PF 10% 50V	
	C787	QET41EM-476	E CAPACITOR	47MF 20% 25V	
	C788	QET41EM-476	E CAPACITOR	47MF 20% 25V	
	C789	QCS11HJ-100	C CAPACITOR	10PF 5% 50V	
	C790	QCS11HJ-100	C CAPACITOR	10PF 5% 50V	
	C791	QET41HM-226	E CAPACITOR	22MF 20% 50V	
	C792	QET41HM-226	E CAPACITOR	22MF 20% 50V	
	C793	QFV41HJ-104ZM	TF CAPACITOR	.10MF 5% 50V	
	C794	QFV41HJ-104ZM	TF CAPACITOR	.10MF 5% 50V	
	C795	QFV41HJ-104ZM	TF CAPACITOR	.10MF 5% 50V	
	C796	QFV41HJ-104ZM	TF CAPACITOR	.10MF 5% 50V	
⚠	D001	1N5402M-20	DIODE	HIGH	
⚠	D002	1N5402M-20	DIODE	HIGH	
⚠	D003	1N5402M-20	DIODE	HIGH	
⚠	D004	1N5402M-20	DIODE	HIGH	
⚠	D011	30DF2FC	DIODE	LOW	
⚠	D012	30DF2FC	DIODE	LOW	
⚠	D013	30DF2FC	DIODE	LOW	
⚠	D014	30DF2FC	DIODE	LOW	
	D015	30DF2FC	DIODE	CHANGE	
	D016	30DF2FC	DIODE	CHANGE	
⚠	D017	1SR35-100	SI DIODE		
	D018	1SR35-100	SI DIODE		
	D019	MTZ30JC	ZENER DIODE		
	D020	UZ6.2BSA	Z.DIODE IDM		
	D021	MTZ5.1B	ZENER DIODE		
	D022	1SS133-T2	DIODE		
	D023	1SS133-T2	DIODE		
	D024	1SS133-T2	DIODE		
	D025	1SS133-T2	DIODE		
⚠	D027	1SR35-100	SI DIODE		
	D030	MTZ11JA	Z.DIODE I.M		
	D060	MTZ5.1B	ZENER DIODE		
	D061	MTZ11JC	Z.DIODE I.M		
	D062	MTZ6.8JC	ZENER DIODE		
	D065	MTZ8.2JC	ZENER DIODE		
	D066	MTZ13JC	ZENER DIODE		
	D067	MTZ13JC	ZENER DIODE		

BLOCK NO. 01

⚠	REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
	D068	MTZ13JC	ZENER DIODE		
	D069	MTZ13JC	ZENER DIODE		
	D070	MTZ13JC	ZENER DIODE	SHORT TEST	
	D703	1SS133-T2	DIODE		
	D704	1SS133-T2	DIODE		
	D719	1SS133-T2	DIODE		
	D720	1SS133-T2	DIODE		
	D728	1SS133-T2	DIODE		
	D751	1SS133-T2	DIODE		
	D752	1SS133-T2	DIODE		
	D753	1SS133-T2	DIODE		
	D754	1SS133-T2	DIODE		
	D755	1SS133-T2	DIODE		
	D756	1SS133-T2	DIODE		
	D757	MTZ3.9JB	Z DIODE		
	D758	MTZ3.9JB	Z DIODE		
	D759	1SS133-T2	DIODE		
	D760	1SS133-T2	DIODE		
	D789	1SS133-T2	DIODE		
	D790	1SS133-T2	DIODE		
	L001	VQZ0048-009	INDUCTOR	CA-D752TR	B,E,EN
	L701	EQL0011-R45J1	INDUCTOR		
	L702	EQL0011-R45J1	INDUCTOR		
	L781	EQL0011-R45J1	INDUCTOR		
	L782	EQL0011-R45J1	INDUCTOR		
	Q001	2SB1187(F,G)	TRANSISTOR X*		
	Q003	DTC114YSA-T	D.TR.I.M		
	Q004	DTC114YSA-T	D.TR.I.M		
	Q005	DTC114YS	TR I.M		
	Q030	2SD2061/EF/	TR.		
	Q040	2SC945A	TRANSISTOR		
	Q041	2SC945A	TRANSISTOR		
	Q060	2SD2061/EF/	TR.		
	Q061	2SC945A	TRANSISTOR		
	Q062	2SC945A	TRANSISTOR		
	Q065	2SD2061/EF/	TR.		
	Q066	2SD2061/EF/	TR.		
	Q067	2SA933S(RS)	TR.I.M		
	Q068	2SC945A	TRANSISTOR		
	Q069	2SD2061/EF/	TR.		
	Q070	2SC945A	TRANSISTOR		
	Q071	2SB1187(F,G)	TRANSISTOR X*		
	Q072	2SA933S(RS)	TR.I.M		
	Q073	KRA104M-T	D.TR.I.M		
	Q074	DTC144ESA-T	D.TR.I.M		
	Q075	KRC104M-T	D.TR.I.M		
	Q076	DTA144ES	D.TRANSISTOR		
	Q701	2SA1038(R,S)	TR.I.M		
	Q702	2SA1038(R,S)	TR.I.M		
	Q726	2SC2389S/SE/-T	TR.I.M		
	Q727	2SA1038(R,S)	TR.I.M		
	Q728	2SC1740S/RS/-T	TRANSISTOR		
	Q733	2SD2144S(VW)	TRANSISTOR		
	Q734	2SD2144S(VW)	TRANSISTOR		
	Q735	2SD2144S(VW)	TRANSISTOR		

BLOCK NO. 01

⚠	REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
	Q736	2SD2144S(VW)	TRANSISTOR		
	Q737	KRA111M-T	D.TR.I.M		
	Q751	2SC1685	TR.I.M		
	Q752	2SA933S(RS)	TR.I.M		
	Q753	2SC1685	TR.I.M		
	Q754	2SA933S(RS)	TR.I.M		
	Q755	2SA965(Y)	TR.I.M		
	Q756	2SC2235(O,Y)	TR.I.M		
	Q781	2SA1038(R,S)	TR.I.M		
	Q782	2SA1038(R,S)	TR.I.M		
	R003	QRD167J-332	C RESISTOR	3.3K 5% 1/4W	
	R004	QRD161J-223	C RESISTOR	22K 5% 1/4W	
	R005	QRD161J-104	C RESISTOR	100K 5% 1/4W	
⚠	R006	QRZ0077-4R7X	C RESISTOR	4.7 1/0W	
	R007	QRZ0077-4R7X	F RESISTOR	4.7 1/0W	
	R008	QRD161J-103	C RESISTOR	10K 5% 1/4W	
	R009	QRD161J-103	C RESISTOR	10K 5% 1/4W	
	R010	QRD161J-472	C RESISTOR	4.7K 5% 1/4W	
	R011	QRD161J-472	C RESISTOR	4.7K 5% 1/4W	
	R012	QRD161J-683	C RESISTOR	100K 5% 1/4W	
	R013	QRD161J-103	C RESISTOR	10K 5% 1/4W	
⚠	R030	QRD14CJ-4R7SX	C RESISTOR	4.7 5% 1/4W	
	R031	QRD161J-681	C RESISTOR	680 5% 1/4W	
	R038	QRD14CJ-4R7SX	C RESISTOR	CA-D752TR	
	R039	QRD14CJ-4R7SX	C RESISTOR	CA-D752TR	
	R040	QRK126J-271X	C RESISTOR	CA-D702T	
	R040	QRD12CJ-331SX	C RESISTOR	CA-D752TR	
	R041	QRD12CJ-331SX	C RESISTOR	330 5% 1/2W	
	R042	QRD161J-222	C RESISTOR	2.2K 5% 1/4W	
	R043	QRK126J-271X	C RESISTOR	CA-D702T	
	R043	QRD12CJ-331SX	C RESISTOR	CA-D752TR	
	R044	QRD12CJ-331SX	C RESISTOR	330 5% 1/2W	
	R045	QRD161J-222	C RESISTOR	2.2K 5% 1/4W	
	R046	QRD161J-222	C RESISTOR	2.2K 5% 1/4W	
	R047	QRD161J-222	C RESISTOR	2.2K 5% 1/4W	
	R062	QRD161J-331	C RESISTOR	330 5% 1/4W	
	R063	QRD161J-331	C RESISTOR	330 5% 1/4W	
	R064	QRD161J-122	C RESISTOR	1.2K 5% 1/4W	
	R065	QRD161J-561	C RESISTOR	560 5% 1/4W	
	R066	QRD161J-561	C RESISTOR	560 5% 1/4W	
	R067	QRD161J-122	C RESISTOR	1.2K 5% 1/4W	
	R068	QRD161J-331	C RESISTOR	330 5% 1/4W	
	R071	QRD167J-4R7	C RESISTOR	4.7 5% 1/4W	
	R072	QRD167J-4R7	C RESISTOR	4.7 5% 1/4W	
	R074	QRZ9021-220	FUSI.RESISTOR	22 1/0W	
	R075	QRZ9021-220	FUSI.RESISTOR	22 1/0W	
	R076	QRD161J-221	C RESISTOR	220 5% 1/4W	
	R077	QRD161J-681	C RESISTOR	680 5% 1/4W	
	R078	QRD161J-182	C RESISTOR	1.8K 5% 1/4W	
	R081	QRD161J-272	C RESISTOR	2.7K 5% 1/4W	
	R082	QRD167J-562	C RESISTOR	5.6K 5% 1/4W	
	R083	QRG01DJ-150X	OMF RESISTOR	15 5% 1/1W	
	R084	QRD161J-272	C RESISTOR	2.7K 5% 1/4W	
	R085	QRD167J-562	C RESISTOR	5.6K 5% 1/4W	
	R086	QRD161J-103	C RESISTOR	10K 5% 1/4W	

BLOCK NO. 01

⚠	REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
	R087	QRD161J-103	C RESISTOR	10K 5% 1/4W	
	R090	QRD161J-102	C RESISTOR	FMB REQUEST	
	R091	QRD161J-102	C RESISTOR	FMB REQUEST	
	R092	QRD161J-102	C RESISTOR	FMB REQUEST	
	R093	QRD161J-102	C RESISTOR	FMB REQUEST	
	R094	QRD161J-103	C RESISTOR	10K 5% 1/4W	
	R100	QRD161J-104	C RESISTOR	CA-D702T	
	R102	QRD161J-103	BUS WIRE I/M	CA-D702T	
	R701	QRD14CJ-100SX	UNF.C.RES. I.M	10 5% 1/4W	
	R702	QRD14CJ-100SX	UNF.C.RES. I.M	10 5% 1/4W	
	R703	QRD161J-563	C RESISTOR	56K 5% 1/4W	
	R704	QRD161J-563	C RESISTOR	56K 5% 1/4W	
	R705	QRD14CJ-182SX	UNF.C.RES. I.M	1.8K 5% 1/4W	
	R706	QRD14CJ-182SX	UNF.C.RES. I.M	1.8K 5% 1/4W	
	R707	QRD161J-563	C RESISTOR	56K 5% 1/4W	
	R708	QRD161J-563	C RESISTOR	56K 5% 1/4W	
	R709	QRX014J-R22	UNF.MF.RES.I.M	5% 1/1W	
	R710	QRX014J-R22	UNF.MF.RES.I.M	5% 1/1W	
	R711	QRX014J-R22	UNF.MF.RES.I.M	5% 1/1W	
	R712	QRX014J-R22	UNF.MF.RES.I.M	5% 1/1W	
	R713	QRD14CJ-100SX	UNF.C.RES. I.M	10 5% 1/4W	
	R714	QRD14CJ-100SX	UNF.C.RES. I.M	10 5% 1/4W	
	R715	QRD14CJ-100SX	UNF.C.RES. I.M	10 5% 1/4W	
	R716	QRD14CJ-100SX	UNF.C.RES. I.M	10 5% 1/4W	
	R717	QRD161J-122	C RESISTOR	1.2K 5% 1/4W	
	R718	QRD161J-122	C RESISTOR	1.2K 5% 1/4W	
	R719	QRD161J-223	C RESISTOR	22K 5% 1/4W	
	R720	QRD161J-223	C RESISTOR	22K 5% 1/4W	
	R721	QRD161J-103	C RESISTOR	10K 5% 1/4W	
	R722	QRD161J-103	C RESISTOR	10K 5% 1/4W	
	R723	QRD161J-473	C RESISTOR	47K 5% 1/4W	
	R724	QRD161J-473	C RESISTOR	47K 5% 1/4W	
	R725	QRD161J-823	C RESISTOR	82K 5% 1/4W	
	R726	QRD161J-104	C RESISTOR	100K 5% 1/4W	
	R727	QRD161J-104	C RESISTOR	100K 5% 1/4W	
	R728	QRD161J-103	C RESISTOR	10K 5% 1/4W	
	R729	QRD161J-104	C RESISTOR	100K 5% 1/4W	
	R730	QRD161J-103	C RESISTOR	10K 5% 1/4W	
	R731	QRE141J-183Y	C RESISTOR	18K 5% 1/4W	
	R732	QRE141J-183Y	CARBON RESISTOR	18K 5% 1/4W	
	R733	QRD161J-472	C RESISTOR	4.7K 5% 1/4W	
	R734	QRD161J-472	C RESISTOR	47K 5% 1/4W	
	R735	QRD161J-472	C RESISTOR	47K 5% 1/4W	
	R736	QRD161J-472	C RESISTOR	4.7K 5% 1/4W	
	R739	QRG01DJ-821X	OMF RESISTOR	820 5% 1/1W	
	R740	QRG01DJ-821X	OMF RESISTOR	820 5% 1/1W	
	R741	QRD161J-473	C RESISTOR	47K 5% 1/4W	
	R742	QRD161J-473	C RESISTOR	47K 5% 1/4W	
	R743	QRD161J-223	C RESISTOR	22K 5% 1/4W	
	R744	QRD161J-223	C RESISTOR	22K 5% 1/4W	
	R745	QRD161J-103	C RESISTOR	10K 5% 1/4W	
	R746	QRD161J-103	C RESISTOR	10K 5% 1/4W	
	R747	QRD161J-823	C RESISTOR	PROTECT	
	R748	QRD161J-104	C RESISTOR	PROTECT	
	R749	QRD161J-471	C RESISTOR	470 5% 1/4W	

BLOCK NO. 01

⚠	REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
	R750	QRD161J-471	C RESISTOR	470 5% 1/4W	
	R751	QRD161J-223	C RESISTOR	22K 5% 1/4W	
	R752	QRD161J-223	C RESISTOR	22K 5% 1/4W	
	R753	QRD161J-222	C RESISTOR	2.2K 5% 1/4W	
	R754	QRD161J-222	C RESISTOR	2.2K 5% 1/4W	
	R755	QRD161J-221	C RESISTOR	220 5% 1/4W	
	R756	QRD161J-221	C RESISTOR	220 5% 1/4W	
	R757	QRD161J-223	C RESISTOR	22K 5% 1/4W	
	R758	QRD161J-223	C RESISTOR	22K 5% 1/4W	
	R759	QRD167J-682	C RESISTOR	6.8K 5% 1/4W	
	R760	QRD167J-682	C RESISTOR	6.8K 5% 1/4W	
	R761	QRD161J-222	C RESISTOR	2.2K 5% 1/4W	
	R762	QRD161J-222	C RESISTOR	2.2K 5% 1/4W	
	R763	QRD161J-223	C RESISTOR	22K 5% 1/4W	
	R764	QRD161J-223	C RESISTOR	22K 5% 1/4W	
	R765	QRG01DJ-182X	OMF RESISTOR	1.8K 5% 1/1W	
	R766	QRG01DJ-182X	OMF RESISTOR	1.8K 5% 1/1W	
	R767	QRD14CJ-681SX	UNF C RES I M	680 5% 1/4W	
	R768	QRD14CJ-681SX	UNF C RES I M	680 5% 1/4W	
	R769	QRD14CJ-821SX	C RESISTOR	820 5% 1/4W	
	R770	QRD14CJ-821SX	C RESISTOR	820 5% 1/4W	
	R771	QRD161J-821	C RESISTOR	820 5% 1/4W	
	R772	QRD161J-821	C RESISTOR	820 5% 1/4W	
	R773	QRD14CJ-101SX	UF RESISTOR	100 5% 1/4W	
	R774	QRD14CJ-101SX	UF RESISTOR	100 5% 1/4W	
	R775	QRD161J-471	C RESISTOR	470 5% 1/4W	
	R776	QRD161J-471	C RESISTOR	470 5% 1/4W	
	R777	QRD14CJ-4R7SX	C RESISTOR	4.7 5% 1/4W	
	R778	QRD14CJ-4R7SX	C RESISTOR	4.7 5% 1/4W	
	R779	QRD161J-222	C RESISTOR	2.2K 5% 1/4W	
	R780	QRD161J-222	C RESISTOR	2.2K 5% 1/4W	
	R781	QRD14CJ-100SX	UNF.C.RES. I.M	10 5% 1/4W	
	R782	QRD14CJ-100SX	UNF.C.RES. I.M	10 5% 1/4W	
	R783	QRD161J-563	C RESISTOR	56K 5% 1/4W	
	R784	QRD161J-563	C RESISTOR	56K 5% 1/4W	
	R785	QRD14CJ-182SX	UNF.C.RES. I.M	1.8K 5% 1/4W	
	R786	QRD14CJ-182SX	UNF.C.RES. I.M	1.8K 5% 1/4W	
	R787	QRD161J-563	C RESISTOR	56K 5% 1/4W	
	R788	QRD161J-563	C RESISTOR	56K 5% 1/4W	
	R789	QRX014J-R22	UNF.MF.RES.I.M	5% 1/1W	
	R790	QRX014J-R22	UNF.MF.RES.I.M	5% 1/1W	
	R791	QRX014J-R22	UNF.MF.RES.I.M	5% 1/1W	
	R792	QRX014J-R22	UNF.MF.RES.I.M	5% 1/1W	
	R793	QRD14CJ-100SX	UNF.C.RES. I.M	10 5% 1/4W	
	R794	QRD14CJ-100SX	UNF.C.RES. I.M	10 5% 1/4W	
	R795	QRD14CJ-100SX	UNF.C.RES. I.M	10 5% 1/4W	
	R796	QRD14CJ-100SX	UNF.C.RES. I.M	10 5% 1/4W	
	R797	QRD161J-122	C RESISTOR	1.2K 5% 1/4W	
	R798	QRD161J-122	C RESISTOR	1.2K 5% 1/4W	
	S001	QSW0524-001	VOLTAGE SW	CA-D702T	
	CN002	EMV7163-011	CONNECTOR	TO FMH-014-3 RE	
	CN003	EMV7163-011	CONNECTOR	TO FMH-014-4 FR	
	CN004	EMV7163-005	CONNECTOR	TO FMH-014-5 R/	
	CN005	EMV7163-011	CONNECTOR	TO SPK BOARD	
	CN006	EMV5163-010R	CONNECTOR	TO FMC (MAIN)	

■ Electric Parts List (Pre Amplifier & Tuner P. C. B.)

BLOCK NO. 01

⚠	REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
	CN007	QGF1201C3-12	VMC0332-012	TO FMB (MICOM)	
	CN009	EMV5138-005	CONNECTOR	TO TRANS	
	CN012	EMV5163-011R	CONECTOR	TO FMH-014-2	
	CN013	EMV5163-011R	CONECTOR	TO FMH-014-2	
	CN014	EMV5163-005R	CONNCTOR		
	CN019	EWS285-202V	SKT WIRE		
	CN111	EMV7145-004Z	SOCKET I.M	TO TRANS	
	CN703	EMV5163-007R	CONNECTOR	TO CONN. BOARD	
	CN704	EMV5163-006R	CONNECTOR	TO CONN. BOARD	
	CN915	EMV7145-004Z	SOCKET I.M	FOR H/PHONE FW	
	EP001	EMZ4002-002Z	IM EARTH PLATE	TO GND CHASSIS	
	FT011	EMG7331-003Z	FUSE CLIP	F001 LIVE FUSE	
	FT012	EMG7331-003Z	FUSE CLIP	F001 LIVE FUSE	
	FT031	EMG7331-003Z	FUSE CLIP	CA-D702T	
	FT032	EMG7331-003Z	FUSE CLIP	CA-D702T	
	FT511	EMG7331-003Z	FUSE CLIP	F101 SEC FUSE	
	FT512	EMG7331-003Z	FUSE CLIP	F101 SEC FUSE	
	FT521	EMG7331-003Z	FUSE CLIP	F102 SEC FUSE	
	FT522	EMG7331-003Z	FUSE CLIP	F102 SEC FUSE	
	FW101	EWR34D-14LSV	EF WIRE		
	IC701	TDA7294	I.C.		
	IC702	TDA7294	I.C.		
	IC781	TDA7295	IC		
	IC782	TDA7295	IC		
	R 098	QRD161J-104	C RESISTOR	CA-D702T	
	R 099	QRD161J-104	C RESISTOR	CA-D702T	
	TB001	EMZ4001-002Z	TAB I.M		
	TB002	EMZ4001-002Z	TAB I.M		
⚠	TH002	QAD0095-4R7Z	POSISTOR I.M		
	W 003	QWE884-18RR	WIRE	CA-D702T	
	W 004	QWE883-18RR	WIRE	CA-D702T	
	W 006	QWE881-14RR	WIRE	CA-D702T	
	W 008	QWE886-18RR	WIRE	CA-D702T	
	W 009	QWE888-18RR	S.WIRE	CA-D702T	
	W 059	QWE880-07RR	WIRE	CA-D702T	UP

BLOCK NO. 02

⚠	REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
	C 1	QCC11EM-223V	C CAPACITOR	.022MF 20% 25V	
	C 3	QCC11EM-473V	C CAPACITOR	.047MF 20% 25V	
	C 4	QCVB1CN-103Y	C CAPACITOR	.010MF 30% 16V	
	C 5	QETN1CM-476Z	E CAPACITOR	CA-D702T	
	C 5	QETN1AM-107Z	AL E.CAPACITOR	CA-D752TR	
	C 8	QCS11HJ-150	C CAPACITOR	CA-D752T	B,E,EN
	C 12	QCSB1HJ-150Y	C CAPACITOR	CA-D752TR	
	C 12	QCSB1HJ-100Y	CER.CAPACITOR-S	CA-D702T	
	C 13	QCVB1CN-103Y	C CAPACITOR	EXCEPTCA-752 EE	
	C 16	QFV41HJ-104ZM	TF CAPACITOR	CA-D752TR	EE
	C 18	QCBB1HK-471Y	C CAPACITOR	470PF 10% 50V	
	C 19	QCBB1HK-471Y	C CAPACITOR	470PF 10% 50V	
	C 21	QCC11EM-473V	C CAPACITOR	.047MF 20% 25V	
	C 30	QEK41CM-476	E CAPACITOR	47MF 20% 16V	
	C 31	QCS31HJ-390Z	C CAPACITOR	CA-D752TR	EE
	C 31	QCSB1HJ-330Y	CER.CAPACITOR	CA-D752TR	B,E,EN
	C 32	QCGB1HK-102	C CAPACITOR	1000PF 10% 50V	
	C 33	QEK61AM-107ZM	E CAPACITOR	100MF 20% 10V	
	C 34	QCS11HJ-150	C CAPACITOR	15PF 5% 50V	
	C 35	QCVB1CN-103Y	C CAPACITOR	.010MF 30% 16V	
	C 36	QEK41CM-106	E CAPACITOR	10MF 20% 16V	
	C 37	QCVB1CN-103Y	C CAPACITOR	.010MF 30% 16V	
	C 38	QCC11EM-473V	C CAPACITOR	.047MF 20% 25V	
	C 39	QCC11EM-473V	C CAPACITOR	.047MF 20% 25V	
	C 40	QCVB1CN-103Y	C CAPACITOR	.010MF 30% 16V	
	C 41	QEK41HM-104	E CAPACITOR	.10MF 20% 50V	
	C 42	QEK41HM-474	E CAPACITOR	.47MF 20% 50V	
	C 43	QEK61HM-335ZN	E CAPACITOR	CA-D752TR	B,E,EN
	C 44	QCSB1HJ-680Y	AL E.CAPACITOR	CA-D702T	
	C 44	QCBB1HK-221Y	C CAPACITOR	CA-D752TR	B,E,EN
	C 45	QEK61EM-106ZN	E CAPACITOR	CA-D752TR	
	C 45	QEK61HM-335ZN	E CAPACITOR	CA-D702T	
	C 46	QCC11EM-223V	C CAPACITOR	.022MF 20% 25V	
	C 47	QCVB1CN-103Y	C CAPACITOR	.010MF 30% 16V	
	C 49	QFLC1HJ-223ZM	M CAPACITOR	CA-D702T	
	C 49	QFLC1HJ-393ZM	M CAPACITOR	CA-D702T	
	C 50	QFLC1HJ-393ZM	M CAPACITOR	CA-D702T	
	C 50	QFLC1HJ-223ZM	M CAPACITOR	CA-D752TR	
	C 51	QEK41HM-105	E CAPACITOR	1.0MF 20% 50V	
	C 52	QEK41HM-105	E CAPACITOR	1.0MF 20% 50V	
	C 53	QCGB1HK-102	C CAPACITOR	CA-D752TR	B,E,EN
	C 54	QEK61HM-335ZN	E CAPACITOR	CA-D752TR	B,E,EN
	C 55	QCS11HJ-120	C CAPACITOR	CA-D752TR	
	C 60	QEK61AM-107ZM	E CAPACITOR	100MF 20% 10V	
	C 61	QCS11HJ-120	C CAPACITOR	12PF 5% 50V	
	C 62	QCS11HJ-120	C CAPACITOR	12PF 5% 50V	
	C 63	QCC11EM-473V	C CAPACITOR	.047MF 20% 25V	
	C 65	QCGB1HK-102	C CAPACITOR	1000PF 10% 50V	
	C 66	QCBB1HK-151Y	C CAPACITOR	150PF 10% 50V	
	C 67	QCBB1HK-151Y	C CAPACITOR	150PF 10% 50V	
	C 68	QCBB1HK-101Y	C CAPACITOR	EXCEPTCA-D752EE	
	C 69	QFV41HJ-105	TF.CAPA. I.M XX	1.0MF 5% 50V	
	C 70	QCXB1CM-392Y	C CAPACITOR	3900PF 20% 16V	
	C 71	QET41CM-476	E CAPACITOR	47MF 20% 16V	
	C 72	QCGB1HK-102	C CAPACITOR	1000PF 10% 50V	

BLOCK NO. 02

⚠	REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
	C 80	QCBB1HK-820Y	C CAPACITOR	CA-D752TR	
	C 81	QCS11HJ-470	C CAPACITOR	CA-D752TR	
	C 82	EETC1CM-106ZJC	E.CAPACITOR	CA-D752TR	
	C 83	QCC11EM-473V	C CAPACITOR	CA-D752TR	
	C 84	QETC1HM-225ZM	E.CAPA. I.M	CA-D752TR	
	C 85	QCBB1HK-331Y	C CAPACITOR	CA-D752TR	
	C 86	QCBB1HK-561Y	C CAPACITOR	CA-D752TR	
	C 89	QCGB1HK-102	C CAPACITOR	CA-D752TR	
	C 90	QCVB1CN-103Y	C CAPACITOR	CA-D752TR	
	C 98	QCS11HJ-100	C CAPACITOR	CA-D752TR	B,E,EN
	CF 1	VCF2L3B-108Z	C FILTER	CA-D702T	
	CF 1	VCF2M3B-104	C FILTER	CA-D752TR	
	CF 2	VCF2L3B-108Z	C FILTER	CA-D702T	
	CF 2	QAX0403-001	C FILTER	CA-D752TR	
	C360	QFV41HJ-104ZM	TF CAPACITOR	.10MF 5% 50V	
	C361	QFV41HJ-104ZM	TF CAPACITOR	.10MF 5% 50V	
	C365	QET41CM-227	E CAPACITOR	220MF 20% 16V	
	C366	QET41AM-108	E CAPACITOR	1000MF 20% 10V	
	C372	EETB1HM-475E	E.CAPA. I.M		
	C373	QCVB1CN-103Y	C CAPACITOR	.010MF 30% 16V	
	C380	QFV41HJ-104ZM	TF CAPACITOR	.10MF 5% 50V	
	C381	QFV41HJ-104ZM	TF CAPACITOR	.10MF 5% 50V	
	C382	QFV41HJ-104ZM	TF CAPACITOR	.10MF 5% 50V	
	C383	QFV41HJ-104ZM	TF CAPACITOR	.10MF 5% 50V	
	C383	QETC1EM-476ZM	E CAPACITOR	47MF 20% 25V	
	C385	EETB1HM-105E	E.CAPA. I.M		
	C386	QCBB1HK-681Y	C CAPACITOR	680PF 10% 50V	
	C387	QFLC1HJ-153ZM	M CAPACITOR	.015MF 5% 50V	
	C388	QCXB1CM-182Y	C CAPACITOR	1800PF 20% 16V	
	C389	QCS11HJ-330	C CAPACITOR	33PF 5% 50V	
	C390	QFV41HJ-104ZM	TF CAPACITOR	.10MF 5% 50V	
	C398	QFV71HJ-103	TF CAPACITOR	CA-D702T	
	C399	QFV71HJ-103	TF CAPACITOR	CA-D702T	
	C401	QFLM1HJ-222Z	M CAPACITOR	2200PF 5% 50V	
	C402	QFLM1HJ-222Z	M CAPACITOR	2200PF 5% 50V	
	C403	QFLM1HJ-102Z	M CAPACITOR	1000PF 5% 50V	
	C404	QFLM1HJ-102Z	M CAPACITOR	1000PF 5% 50V	
	C407	QTE1V06-106Z	E.CAPA. I.M		
	C408	QTE1V06-106Z	E.CAPA. I.M		
	C411	EETB1EM-106E	E.CAPA. I.M		
	C412	EETB1EM-106E	E.CAPA. I.M		
	C413	QCBB1HK-471Y	C CAPACITOR	470PF 10% 50V	
	C414	QCBB1HK-471Y	C CAPACITOR	470PF 10% 50V	
	C415	EETB1EM-106E	E.CAPA. I.M		
	C416	EETB1EM-106E	E.CAPA. I.M		
	C417	EETB1EM-106E	E.CAPA. I.M		
	C418	QETC1HM-225ZM	E.CAPA. I.M	2.2MF 20% 50V	
	C419	EETB1EM-106E	E.CAPA. I.M		
	C420	QET41AM-227	E CAPACITOR	220MF 20% 10V	
	C421	QFV41HJ-104ZM	TF CAPACITOR	.10MF 5% 50V	
	C422	QFV41HJ-104ZM	TF CAPACITOR	.10MF 5% 50V	
	C423	QFV41HJ-104ZM	TF CAPACITOR	.10MF 5% 50V	
	C424	QFV41HJ-104ZM	TF CAPACITOR	.10MF 5% 50V	
	C425	QFLC1HJ-183ZM	M CAPACITOR	.018MF 5% 50V	
	C426	QFLC1HJ-183ZM	M CAPACITOR	.018MF 5% 50V	

BLOCK NO. 02

⚠	REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
	C427	QFLC1HJ-223ZM	M CAPACITOR	.022MF 5% 50V	
	C428	QFLC1HJ-223ZM	M CAPACITOR	.022MF 5% 50V	
	C429	QFLM1HJ-562Z	M CAPACITOR	5600PF 5% 50V	
	C430	QFLM1HJ-562Z	M CAPACITOR	5600PF 5% 50V	
	C431	QETC1HM-225ZM	E.CAPA. I.M	2.2MF 20% 50V	
	C432	QETC1HM-225ZM	E.CAPA. I.M	2.2MF 20% 50V	
	C433	EETB1HM-105E	E.CAPA. I.M		
	C434	EETB1HM-105E	E.CAPA. I.M		
	C435	EETB1EM-106E	E.CAPA. I.M		
	C436	EETB1EM-106E	E.CAPA. I.M		
	C439	QETC1HM-224Z	E.CAPA. I.M	CA-D702T	
	C440	EETB1EM-106E	E.CAPA. I.M	CA-D702T	
	C441	EETB1EM-106E	E.CAPA. I.M		
	C442	EETB1EM-106E	E.CAPA. I.M		
	C445	QCBB1HK-101Y	C CAPACITOR	100PF 10% 50V	
	C446	QCBB1HK-101Y	C CAPACITOR	100PF 10% 50V	
	C447	EETB1EM-106E	E.CAPA. I.M		
	C448	EETB1EM-106E	E.CAPA. I.M		
	C454	QCBB1HK-101Y	C CAPACITOR	100PF 10% 50V	
	C457	EETB1EM-106E	E.CAPA. I.M		
	C458	EETB1EM-106E	E.CAPA. I.M		
	C459	QFLM1HJ-333Z	M CAPACITOR	.033MF 5% 50V	
	C460	EETB1HM-475E	E.CAPA. I.M		
	C461	QETB1HM-474N	E.CAPA. I.M	.47MF 20% 50V	
	C462	QFLC1HJ-393ZM	M CAPACITOR	.039MF 5% 50V	
	C463	QETB1HM-474N	E.CAPA. I.M	.47MF 20% 50V	
	C465	QFLC1HJ-393ZM	M CAPACITOR	.039MF 5% 50V	
	C466	QFLC1HJ-473ZM	M CAPACITOR	.047MF 5% 50V	
	C467	EETB1HM-105E	E.CAPA. I.M		
	C468	QETC1EM-476ZM	E.CAPA. I.M	47MF 20% 25V	
	C469	QCBB1HK-101Y	C CAPACITOR	EXCEPTCA-D752EE	
	C470	QCBB1HK-101Y	C CAPACITOR	EXCEPTCA-D752EE	
	C471	QCBB1HK-101Y	C CAPACITOR	100PF 10% 50V	
	C472	QCBB1HK-101Y	C CAPACITOR	100PF 10% 50V	
	C473	QETC1EM-476ZM	E.CAPA. I.M	47MF 20% 25V	
	C474	QETC1EM-476ZM	E.CAPA. I.M	47MF 20% 25V	
	C475	QTE1V06-106Z	E.CAPA. I.M		
	C476	QTE1V06-106Z	E.CAPA. I.M		
	C477	EETB1HM-475E	E.CAPA. I.M		
	C484	QCBB1HK-101Y	C CAPACITOR	100PF 10% 50V	
	C489	QET41CM-476	E CAPACITOR	47MF 20% 16V	
	C490	QET41CM-476	E CAPACITOR	47MF 20% 16V	
	C493	QFV41HJ-104ZM	TF CAPACITOR	.10MF 5% 50V	
	C494	QFV41HJ-104ZM	TF CAPACITOR	.10MF 5% 50V	
	C495	QFV41HJ-104ZM	TF CAPACITOR	.10MF 5% 50V	
	C496	QFV41HJ-104ZM	TF CAPACITOR	.10MF 5% 50V	
	C501	EETB1EM-106E	E.CAPA. I.M		
	C502	EETB1EM-106E	E.CAPA. I.M		
	C503	QFLC1HJ-223ZM	M CAPACITOR	.022MF 5% 50V	
	C504	QFLC1HJ-473ZM	M CAPACITOR	.047MF 5% 50V	
	C505	QET41AM-227	E CAPACITOR	220MF 20% 10V	
	C506	EETB1EM-106E	E.CAPA. I.M		
	C507	EETB1EM-106E	E.CAPA. I.M		
	C508	EETB1EM-106E	E.CAPA. I.M		
	C509	EETB1EM-106E	E.CAPA. I.M		

BLOCK NO. 02

⚠	REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
	C510	QET41AM-227	E CAPACITOR	220MF 20% 10V	
	C511	QFV41HJ-104ZM	TF CAPACITOR	.10MF 5% 50V	
	C512	QFV41HJ-104ZM	TF CAPACITOR	.10MF 5% 50V	
	C513	QFV41HJ-104ZM	TF CAPACITOR	.10MF 5% 50V	
	C514	QFV41HJ-104ZM	TF CAPACITOR	.10MF 5% 50V	
	C515	QETB1HM-474N	E.CAPA. I.M	.47MF 20% 50V	
	C516	QETB1HM-474N	E.CAPA. I.M	.47MF 20% 50V	
	C517	EETB1HM-475E	E.CAPA. I.M		
	C518	EETB1HM-475E	E.CAPA. I.M		
	C519	QETB1HM-474N	E.CAPA. I.M	.47MF 20% 50V	
	C520	QETB1HM-474N	E.CAPA. I.M	.47MF 20% 50V	
	C521	EETB1HM-475E	E.CAPA. I.M		
	C522	EETB1HM-475E	E.CAPA. I.M		
	C523	QFV81HJ-154	TF CAPACITOR	.15MF 5% 50V	
	C524	QFV81HJ-154	TF CAPACITOR	.15MF 5% 50V	
	C525	QETN1HM-335Z	E CAPACITOR	3.3MF 20% 50V	
	C526	QETN1HM-335Z	E CAPACITOR	3.3MF 20% 50V	
	C527	QFV81HJ-154	TF CAPACITOR	.15MF 5% 50V	
	C528	QFV81HJ-154	TF CAPACITOR	.15MF 5% 50V	
	C529	QFV41HJ-474	CAPACITOR	.47MF 5% 50V	
	C530	QETC1EM-476ZM	E.CAPA. I.M	47MF 20% 25V	
	C531	QET41CM-227	E CAPACITOR	220MF 20% 16V	
	C532	QCBB1HK-681Y	C CAPACITOR	680PF 10% 50V	
	C533	QCBB1HK-101Y	C CAPACITOR	100PF 10% 50V	
	C535	QCBB1HK-561Y	C CAPACITOR	560PF 10% 50V	
	C541	QETC1HM-225ZM	E.CAPA. I.M	2.2MF 20% 50V	
	C543	QCF11HP-473	C CAPACITOR	.047MF +80:-20%	
	C544	QETB1HM-474N	E.CAPA. I.M	.47MF 20% 50V	
	C545	QETB1HM-474N	E.CAPA. I.M	.47MF 20% 50V	
	C546	QFLM1HJ-823Z	M CAPACITOR	.082MF 5% 50V	
	C547	QCY41HK-332	C CAPACITOR	3300PF 10% 50V	
	C548	QFLM1HJ-823Z	M CAPACITOR	.082MF 5% 50V	
	C549	QET41AM-227	E CAPACITOR	220MF 20% 10V	
	C550	QCF11HP-473	C CAPACITOR	.047MF +80:-20%	
	C551	QCS11HJ-300	C CAPACITOR	X.TAL	
	C552	QCS11HJ-300	C CAPACITOR	X.TAL	
	C553	EETB1EM-106E	E.CAPA. I.M	SIGNAL OUT	
	C554	EETB1EM-106E	E.CAPA. I.M	SIGNAL OUT	
	C555	QCBB1HK-101Y	C CAPACITOR	EXCEPTCA-D752EE	
	C556	QCBB1HK-101Y	C CAPACITOR	EXCEPTCA-D752EE	
	C561	QETC1HM-225ZM	E.CAPA. I.M	CENTER,REAR IN	
	C562	QETC1HM-225ZM	E.CAPA. I.M	CENTER,REAR IN	
	C563	EETB1HM-105E	E.CAPA. I.M	CENTER,REAR OUT	
	C564	EETB1HM-105E	E.CAPA. I.M	CENTER,REAR OUT	
	C565	EETB1EM-106E	E.CAPA. I.M		
	C567	QCBB1HK-101Y	C CAPACITOR	100PF 10% 50V	
	C568	QCBB1HK-101Y	C CAPACITOR	100PF 10% 50V	
	C569	EETB1EM-106E	E.CAPA. I.M		
	C570	EETB1EM-106E	E.CAPA. I.M		
	C581	QCVB1CN-103Y	C CAPACITOR	.010MF 30% 16V	
	C582	QCVB1CN-103Y	C CAPACITOR	.010MF 30% 16V	
	C584	QFV71HJ-103	TF CAPACITOR	CA-D702T	
	C585	QCGB1HK-102	C CAPACITOR	CA-D702T	US,UT,UX
	C585	QCGB1HK-102	C CAPACITOR	CA-D702T	U,UB,UP
	C586	EETB1EM-106E	E.CAPA. I.M	CA-D702T	

BLOCK NO. 02

⚠	REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
	D 1	1SS133-T2	DIODE		
	D 2	1SS133-T2	DIODE		
	D 3	1SS133-T2	DIODE		
	D 4	1SS133-T2	DIODE		
	D301	1SR35-100	SI DIODE		
	D302	MTZ3.9JB	Z DIODE		
	D303	1SS133-T2	DIODE		
	D304	1SR35-100	SI DIODE		
	D305	1SS133-T2	DIODE		
	D306	1SS133-T2	DIODE	EXCEPT CA-D702A	
	D307	1SS133-T2	DIODE		
	D401	MTZ5.1B	ZENER DIODE		
	D402	MTZ5.1B	ZENER DIODE		
	D403	1SR35-100	SI DIODE		
	D481	1SS133-T2	DIODE		
	D482	1SS133-T2	DIODE		
	J 1	EMB41YV-302K	ANT TERMINAL	CA-D752TR	
	J 1	FMMB10YV-401K	ANT TERMINAL	CA-D702T	
	J401	EMN00TV-222AJ2	PIN JACK		
	L 1	QQR0884-001	COIL BLOCK	CA-D752TR	
	L 1	VQZ0098-202	COIL BLOCK	CA-D702T	
	L 4	VQP0018-221	INDUCTOR		
	L 5	EQL4007-101	INDUCTOR	CA-D752TR	
	L 10	VQZ0069-002S	TRAP COIL	CA-D752TR	B,E,EN
	L 11	VQP0018-2R7	INDUCTOR	CA-D752TR	
	L 12	VQP0018-330	INDUCTOR	CA-D752TR	B,E,EN
	L401	QQL29BJ-100Z	INDUCTOR		
	L402	VQZ0048-009	INDUCTOR	EXECPTCA-D752EE	
	L403	VQZ0048-009	INDUCTOR		
	L405	VQZ0048-009	INDUCTOR	CA-D752T	B,E,EN
	Q 1	2SC1923	TR TAPE		
	Q 2	DTA114YS	D.TR.I.M	CA-D752TR	
	Q 3	2SC2785	TRANSISTOR	CA-D752TR	
	Q 4	2SC2785	TRANSISTOR	CA-D752TR	
	Q 6	DTA114YS	D.TR.I.M		
	Q 14	2SA1175	TRANSISTOR	CA-D752TR	
	Q 16	2SC2785	TRANSISTOR	CA-D752TR	B,E,EN
	Q301	2SD2144S(VW)	TRANSISTOR		
	Q302	2SD2144S(VW)	TRANSISTOR		
	Q304	2SA1175	TRANSISTOR		
	Q305	2SC2785	TRANSISTOR		
	Q306	2SC2785	TRANSISTOR		
	Q307	2SC2785	TRANSISTOR		
	Q308	DTC144TSA-T	D.TR.I.M		
	Q401	2SD2144S(VW)	TRANSISTOR		
	Q402	2SD2144S(VW)	TRANSISTOR		
	Q403	KRA102M-T	D.TR.I.M		
	Q501	2SD2144S(VW)	TRANSISTOR		
	Q502	2SD2144S(VW)	TRANSISTOR		
	R 1	QRD161J-102	C RESISTOR	1.0K 5% 1/4W	
	R 2	QRD161J-181	C RESISTOR	CA-D752TR	B,E,EN
⚠	R 2	QRD161J-821	C RESISTOR	CA-D702T	
	R 2	QRD167J-121	C RESISTOR	CA-D752TR	EE
	R 3	QRD161J-101	C RESISITOR	CA-D752TR	B,E,EN
	R 3	QRD161J-560	C RESISTOR	CA-D702T	

BLOCK NO. 02

⚠	REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
	R 3	QRD161J-560	C RESISTOR	CA-D752TR	EE
	R 10	QRD161J-102	C RESISTOR	CA-D702T	
	R 10	QRD161J-152	C RESISTOR	CA-D752TR	
	R 12	QRD161J-102	C RESISTOR	1.0K 5% 1/4W	
	R 13	QRD161J-104	C RESISTOR	100K 5% 1/4W	
	R 15	QRD161J-103	C RESISTOR	CA-D752TR	
	R 16	QRD161J-103	C RESISTOR	CA-D752TR	
	R 20	QRD161J-331	C RESISTOR	330 5% 1/4W	
	R 21	QRD161J-224	C RESISTOR	220K 5% 1/4W	
	R 22	QRD161J-331	C RESISTOR	330 5% 1/4W	
	R 23	QRD161J-270	C RESISTOR	CA-D702T	
	R 24	QRD161J-271	C RESISTOR	270 5% 1/4W	
	R 25	QRD161J-273	C RESISTOR	CA-D702T	
	R 25	QRD161J-473	C RESISTOR	CA-D752TR	
	R 26	QRD161J-273	C RESISTOR	CA-D752TR	B,E,EN
	R 27	QRD161J-223	C RESISTOR	22K 5% 1/4W	
	R 29	QRD161J-473	C RESISTOR	47K 5% 1/4W	
	R 30	QRD161J-103	C RESISTOR	10K 5% 1/4W	
	R 31	QRD161J-103	C RESISTOR	10K 5% 1/4W	
	R 32	QRD161J-273	C RESISTOR	CA-D702T	
	R 32	QRD161J-273	C RESISTOR	CA-D752TR	EE
	R 33	QRD161J-560	C RESISTOR	CA-D702T	
	R 34	QRD161J-222	C RESISTOR	2.2K 5% 1/4W	
	R 35	QRD161J-222	C RESISTOR	2.2K 5% 1/4W	
	R 36	QRD161J-103	C RESISTOR	10K 5% 1/4W	
	R 37	QRD167J-562	C RESISTOR	5.6K 5% 1/4W	
	R 38	QRD161J-392	C RESISTOR	3.9K 5% 1/4W	
	R 39	QRD161J-392	C RESISTOR	3.9K 5% 1/4W	
	R 42	QRD161J-102	C RESISTOR	1.0K 5% 1/4W	
	R 43	QRD161J-102	C RESISTOR	1.0K 5% 1/4W	
	R 44	QRD161J-102	C RESISTOR	1.0K 5% 1/4W	
	R 45	QRD161J-102	C RESISTOR	1.0K 5% 1/4W	
	R 46	QRD161J-563	C RESISTOR	5.6K 5% 1/4W	
	R 47	QRD161J-103	C RESISTOR	10K 5% 1/4W	
	R 48	QRD161J-331	C RESISTOR	330 5% 1/4W	
	R 49	QRD161J-102	C RESISTOR	1.0K 5% 1/4W	
	R 52	QRD161J-472	C RESISTOR	4.7K 5% 1/4W	
	R 54	QRD161J-472	C RESISTOR	4.7K 5% 1/4W	
	R 55	QRD161J-182	C RESISTOR	1.8K 5% 1/4W	
	R 56	QRD167J-332	C RESISTOR	3.3K 5% 1/4W	
	R 57	QRD161J-102	C RESISTOR	1.0K 5% 1/4W	
	R 60	QRD161J-102	C RESISTOR	CA-D752TR	
	R 61	QRD161J-102	C RESISTOR	CA-D752TR	
	R 64	QRD161J-473	C RESISTOR	47K 5% 1/4W	
	R 65	QRD161J-222	C RESISTOR	2.2K 5% 1/4W	
	R 66	QRD161J-222	C RESISTOR	2.2K 5% 1/4W	
	R 69	QRD161J-103	C RESISTOR	10K 5% 1/4W	
	R 70	QRD161J-393	C RESISTOR	CA-D752TR	B,E,EN
	R 71	QRD161J-823	C RESISTOR	CA-D752TR	B,E,EN
	R 72	QRD161J-122	C RESISTOR	CA-D752TR	B,E,EN
	R 73	QRD161J-222	C RESISTOR	CA-D752TR	B,E,EN
	R 74	QRD167J-332	C RESISTOR	CA-D752TR	B,E,EN
	R 75	QRD161J-822	C RESISTOR	CA-D752TR	B,E,EN
	R 76	QRD161J-102	C RESISTOR	CA-D752TR	
	R 80	QRD161J-222	C RESISTOR	CA-D752TR	

BLOCK NO. 02

⚠	REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
	R 82	QRD161J-102	C RESISTOR	CA-D752TR	
	R 83	QRD161J-102	C RESISTOR	CA-D752TR	
	R 84	QRD161J-103	C RESISTOR	CA-D752TR	
	R 91	QRD161J-103	C RESISTOR	CA-D752TR	
	R100	QRD161J-103	C RESISTOR	10K 5% 1/4W	
	R101	QRD161J-103	C RESISTOR	10K 5% 1/4W	
	R102	QRD161J-103	C RESISTOR	10K 5% 1/4W	
	R103	QRD161J-512	C RESISTOR	CA-D752TR	
	R103	QRD161J-222	C RESISTOR	CA-D702T	
	R104	QRD161J-512	C RESISTOR	CA-D752TR	
	R104	QRD161J-222	C RESISTOR	CA-D702T	
	R105	QRD161J-1R0	C RESISTOR	1.0 5% 1/4W	
	R360	QRD161J-222	C RESISTOR	2.2K 5% 1/4W	
	R362	QRD161J-221	C RESISTOR	CA-D752T	
	R370	QRD161J-102	C RESISTOR	1.0K 5% 1/4W	
	R371	QRD161J-103	C RESISTOR	10K 5% 1/4W	
	R372	QRD161J-103	C RESISTOR	10K 5% 1/4W	
	R373	QRZ0077-470	C RESISTOR	47 1/0W	
	R375	QRD161J-331	C RESISTOR	330 5% 1/4W	
	R377	QRD161J-103	C RESISTOR	10K 5% 1/4W	
	R378	QRD161J-104	C RESISTOR	100K 5% 1/4W	
	R383	QRD161J-472	C RESISTOR	4.7K 5% 1/4W	
	R384	QRD161J-472	C RESISTOR	4.7K 5% 1/4W	
	R386	QRD161J-104	C RESISTOR	100K 5% 1/4W	
	R387	QRD161J-473	C RESISTOR	47K 5% 1/4W	
	R388	QRD161J-220	C RESISTOR	22 5% 1/4W	
	R389	QRD161J-225	C RESISTOR	2.2M 5% 1/4W	
	R401	QRD161J-222	C RESISTOR	2.2K 5% 1/4W	
	R402	QRD161J-222	C RESISTOR	2.2K 5% 1/4W	
	R403	QRD161J-222	C RESISTOR	2.2K 5% 1/4W	
	R404	QRD161J-222	C RESISTOR	2.2K 5% 1/4W	
	R405	QRD161J-102	C RESISTOR	1.0K 5% 1/4W	
	R406	QRD161J-102	C RESISTOR	1.0K 5% 1/4W	
	R407	QRD167J-562	C RESISTOR	5.6K 5% 1/4W	
	R408	QRD167J-562	C RESISTOR	5.6K 5% 1/4W	
	R413	QRD161J-123	C RESISTOR	12K 5% 1/4W	
	R414	QRD161J-123	C RESISTOR	12K 5% 1/4W	
	R415	QRD161J-823	C RESISTOR	82K 5% 1/4W	
	R416	QRD161J-823	C RESISTOR	82K 5% 1/4W	
	R417	QRD167J-562	C RESISTOR	5.6K 5% 1/4W	
	R418	QRD167J-562	C RESISTOR	5.6K 5% 1/4W	
	R419	QRD161J-272	C RESISTOR	2.7K 5% 1/4W	
	R420	QRD161J-272	C RESISTOR	2.7K 5% 1/4W	
	R421	QRD161J-104	C RESISTOR	100K 5% 1/4W	
	R422	QRD161J-104	C RESISTOR	100K 5% 1/4W	
	R423	QRD161J-303Y	C RESISTOR	CA-D702T	
	R424	QRD161J-153	C RESISTOR	CA-D702T	
	R425	QRD161J-153	C RESISTOR	CA-D702T	
	R426	QRD161J-303Y	C RESISTOR	CA-D702T	
	R427	QRD161J-153	C RESISTOR	CA-D702T	
	R428	QRD161J-104	C RESISTOR	CA-D702T	
	R429	QRD161J-152	C RESISTOR	1.5K 5% 1/4W	
	R430	QRD161J-152	C RESISTOR	1.5K 5% 1/4W	
	R433	QRD167J-562	C RESISTOR	5.6K 5% 1/4W	
	R434	QRD167J-562	C RESISTOR	5.6K 5% 1/4W	

BLOCK NO. 02

⚠	REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
	R435	QRD161J-822	C RESISTOR	8.2K 5% 1/4W	
	R436	QRD161J-472	C RESISTOR	4.7K 5% 1/4W	
	R437	QRD161J-472	C RESISTOR	4.7K 5% 1/4W	
	R438	QRD161J-472	C RESISTOR	4.7K 5% 1/4W	
	R439	QRD161J-432	C RESISTOR	4.3K 5% 1/4W	
	R440	QRD161J-432	C RESISTOR	4.3K 5% 1/4W	
	R441	QRD161J-104	C RESISTOR	100K 5% 1/4W	
	R442	QRD161J-104	C RESISTOR	100K 5% 1/4W	
	R443	QRD167J-113	C RESISTOR	CA-D702T	
	R444	QRD167J-113	C RESISTOR	CA-D702T	
	R445	QRD161J-303Y	C RESISTOR	30K 5% 1/4W	
	R446	QRD161J-303Y	C RESISTOR	30K 5% 1/4W	
	R447	QRD161J-153	C RESISTOR	15K 5% 1/4W	
	R450	QRD161J-224	C RESISTOR	220K 5% 1/4W	
	R453	QRD161J-104	C RESISTOR	100K 5% 1/4W	
	R454	QRD161J-104	C RESISTOR	100K 5% 1/4W	
	R455	QRD161J-103	C RESISTOR	10K 5% 1/4W	
	R456	QRD161J-103	C RESISTOR	10K 5% 1/4W	
	R457	QRD167J-562	C RESISTOR	5.6K 5% 1/4W	
	R458	QRD161J-752	C RESISTOR	7.5K 5% 1/4W	
	R459	QRD161J-472	C RESISTOR	4.7K 5% 1/4W	
	R460	QRD161J-472	C RESISTOR	4.7K 5% 1/4W	
	R461	QRD161J-221	C RESISTOR	220 5% 1/4W	
	R462	QRD161J-222	C RESISTOR	2.2K 5% 1/4W	
	R463	QRD161J-103	C RESISTOR	10K 5% 1/4W	
	R464	QRD161J-103	C RESISTOR	10K 5% 1/4W	
	R465	QRD161J-102	C RESISTOR	1.0K 5% 1/4W	
	R469	QRD161J-221	C RESISTOR	220 5% 1/4W	
	R470	QRD161J-221	C RESISTOR	220 5% 1/4W	
	R471	QRD161J-103	C RESISTOR	10K 5% 1/4W	
	R472	QRD161J-103	C RESISTOR	10K 5% 1/4W	
	R473	QRD161J-103	C RESISTOR	10K 5% 1/4W	
	R493	QRD161J-203	C RESISTOR	20K 5% 1/4W	
	R494	QRD161J-203	C RESISTOR	20K 5% 1/4W	
	R497	QRD161J-104	C RESISTOR	100K 5% 1/4W	
	R498	QRD161J-104	C RESISTOR	100K 5% 1/4W	
	R501	QRD161J-102	C RESISTOR	SIGNAL IN	
	R502	QRD161J-102	C RESISTOR	SIGNAL IN	
	R541	QRD161J-105	C RESISTOR	1.0M 5% 1/4W	
	R542	QRD161J-393	C RESISTOR	39K 5% 1/4W	
	R543	QRD161J-102	C RESISTOR	1.0K 5% 1/4W	
	R544	QRD161J-102	C RESISTOR	1.0K 5% 1/4W	
	R545	QRD161J-203	C RESISTOR	20K 5% 1/4W	
	R546	QRD161J-473	C RESISTOR	47K 5% 1/4W	
	R547	QRD161J-473	C RESISTOR	47K 5% 1/4W	
	R548	QRD161J-563	C RESISTOR	56K 5% 1/4W	
	R549	QRD161J-563	C RESISTOR	56K 5% 1/4W	
	R553	QRD161J-104	C RESISTOR	100K 5% 1/4W	
	R554	QRD161J-104	C RESISTOR	100K 5% 1/4W	
	R555	QRD161J-102	C RESISTOR	1.0K 5% 1/4W	
	R556	QRD161J-102	C RESISTOR	1.0K 5% 1/4W	
	R561	QRD161J-473	C RESISTOR	47K 5% 1/4W	
	R562	QRD161J-473	C RESISTOR	47K 5% 1/4W	
	R563	QRD161J-103	C RESISTOR	10K 5% 1/4W	
	R564	QRD161J-103	C RESISTOR	10K 5% 1/4W	

BLOCK NO. 02

⚠	REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
	R565	QRD161J-162	C RESISTOR	1.6K 5% 1/4W	
	R566	QRD161J-162	C RESISTOR	1.6K 5% 1/4W	
	R567	QRD161J-104	C RESISTOR	100K 5% 1/4W	
	R568	QRD161J-104	C RESISTOR	100K 5% 1/4W	
	R569	QRD161J-221	C RESISTOR	220 5% 1/4W	
	R570	QRD161J-221	C RESISTOR	220 5% 1/4W	
	R571	QRD161J-103	C RESISTOR	10K 5% 1/4W	
	R572	QRD161J-103	C RESISTOR	10K 5% 1/4W	
	R573	QRD161J-103	C RESISTOR	10K 5% 1/4W	
	R574	QRD161J-103	C RESISTOR	SIGNAL IN	
	R575	QRD161J-103	C RESISTOR	10K 5% 1/4W	
	R576	QRD161J-102	C RESISTOR	1.0K 5% 1/4W	
	R577	QRD161J-102	C RESISTOR	1.0K 5% 1/4W	
	R578	QRD161J-103	C RESISTOR	10K 5% 1/4W	
	R579	QRD161J-102	C RESISTOR	1.0K 5% 1/4W	
	R580	QRD161J-103	C RESISTOR	10K 5% 1/4W	
	R581	QRD161J-102	C RESISTOR	1.0K 5% 1/4W	
	R582	QRD161J-102	C RESISTOR	1.0K 5% 1/4W	
	R583	QRD161J-102	C RESISTOR	1.0K 5% 1/4W	
	R584	QRD161J-102	C RESISTOR	1.0K 5% 1/4W	
	R585	QRD161J-102	C RESISTOR	1.0K 5% 1/4W	
	R586	QRD161J-103	C RESISTOR	10K 5% 1/4W	
	R587	QRD161J-102	C RESISTOR	1.0K 5% 1/4W	
	R588	QRD161J-103	C RESISTOR	10K 5% 1/4W	
	R589	QRD161J-102	C RESISTOR	1.0K 5% 1/4W	
	R590	QRD161J-223	C RESISTOR	22K 5% 1/4W	
	R591	QRD161J-223	C RESISTOR	22K 5% 1/4W	
	R593	QRD161J-102	C RESISTOR	1.0K 5% 1/4W	
	R594	QRD161J-181	C RESISTOR	180 5% 1/4W	
	R595	QRD161J-181	C RESISTOR	180 5% 1/4W	
	R597	QRD161J-222	C RESISTOR	4.7K 5% 1/4W	
	R599	QRD161J-222	C RESISTOR	2.2K 5% 1/4W	
	T 1	VQT7A21-113	IFT		
	TU 1	QAU0034-001	FRONT END		
	X 1	QAX0402-001	CRYSTAL		
	X 2	VCX5057-001	CRYSTAL	CA-D752TR	
	X541	ECXP8R0-001Z	RESONATOR I.M	X.TAL	
	CF 3	VCF1Z2Z-115Z	C FILTER		
	CF 4	CMU2-456A05	CERA LOCK		
	CN410	EMV7171-119	CONNECTOR	MAIN-VC3	
	CN411	QGF1201C3-20	FFC/FPC CONNE	FMB-MAIN	
	CN412	VMC0332-010V	CONNECTOR	MAIN-SLC	
	CN413	VMC0332-016V	FFC/FPC CONNE	FMB-MAIN	
	CN414	EMV7145-005Z	SOCKET I.M	CA-D702T	
	CN415	EMV7145-004Z	SOCKET I.M	MAIN-C.BRD	
	CN416	QGB2510J1-10	CONNECTOR	FMH-FMC**	
	CN420	EMV7163-009	CONNECTOR	CA-D752TR	EE
	CN430	EMV7145-003Z	SOCKET I.M		
	EP001	E409182-001SM	GRAND TERMINAL		
	IC 1	TA2057N	IC		
	IC 2	LC72136N	IC		
	IC 4	BU1923	IC(RDS)	CA-D752TR	
	IC401	TDA7439	IC	MAIN VOL	
	IC402	BA15218	IC		
	IC403	BA15218	IC	KARAOKE	

BLOCK NO. 02

⚠	REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
	IC404	TC4052BP	IC		
	IC405	BA15218	IC		
	IC406	LA2650	IC		
	IC407	BA15218	IC		
	IC501	LA2786	IC		
	IC541	LV1016	IC		
	IC542	BA3835S	IC		
	IC561	TDA7439	IC		
	IC562	BA15218	IC		

■ Electric Parts List (System Micon & Operation Switch P. C. B.)

BLOCK NO. 03

⚠	REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
	C 100	EETB1HM-105E	E.CAPA. I.M	CA-D752TR	EE
	C 101	EETC1HM-335ZE	E.CAPACITOR	CA-D752TR	EE
	C 103	QFLC1HJ-103ZM	M CAPACITOR	CA-D752TR	EE
	C 104	QFLC1HJ-103ZM	M CAPACITOR	CA-D752TR	EE
	C 105	QCBB1HK-271Y	C CAPACITOR	CA-D752TR	EE
	C 106	QCBB1HK-271Y	C CAPACITOR	CA-D752TR	EE
	C 107	EETB1HM-475E	E.CAPA. I.M	CA-D752TR	EE
	C 108	EETB1HM-475E	E.CAPA. I.M	CA-D752TR	EE
	C 109	QCXB1CM-222Y	C CAPACITOR	CA-D752TR	EE
	C 110	QCXB1CM-222Y	C CAPACITOR	CA-D752TR	EE
	C 111	QET41AM-226	E CAPACITOR	CA-D752TR	EE
	C 112	QFLM1HJ-822Z	M CAPACITOR	CA-D752TR	EE
	C 113	QFLC1HJ-103ZM	M CAPACITOR	CA-D752TR	EE
	C 114	QFLC1HJ-103ZM	M CAPACITOR	CA-D752TR	EE
	C 115	EETB1HM-105E	E.CAPA. I.M	CA-D752TR	EE
	C 116	QETC1HM-225ZM	E.CAPA. I.M	CA-D752TR	EE
	C 117	QETC1HM-225ZM	E.CAPA. I.M	CA-D752TR	EE
	C 118	EETC1HM-335ZE	E.CAPACITOR	CA-D752TR	EE
	C 201	EETB1HM-475E	E.CAPA. I.M	CA-D702T	
	C 202	EETB1AM-107E	E.CAPA. I.M	CA-D702T	
	C 203	QFV41HJ-104ZM	TF CAPACITOR	CA-D702T	
	C 204	QCBB1HK-101Y	C CAPACITOR	CA-D702T	
	C 205	QCVB1CN-103Y	C CAPACITOR	CA-D702T	
	C 206	QCXB1CM-472Y	C.CAPACITOR	CA-D702T	
	C 207	EETC1HM-226ZE	E.CAPA. I.M	CA-D702T	
	C 208	QCVB1CN-103Y	C CAPACITOR	CA-D702T	
	C 209	QCXB1CM-332Y	C CAPACITOR	CA-D702T	
	C 210	QFV41HJ-474	CAPACITOR	CA-D702T	
	C 211	QCVB1CN-103Y	C CAPACITOR	CA-D702T	
	C 212	QETC1HM-225ZM	E.CAPA. I.M	CA-D702T	
	C 223	QCVB1CN-103Y	C CAPACITOR	CA-D702T	
	C 224	QCVB1CN-103Y	C CAPACITOR	CA-D702T	
	C 225	QET41HM-105	E CAPACITOR	CA-D702T	
	C 226	QCBB1HK-101Y	C CAPACITOR	CA-D702T	
	C 227	QETC1HM-106ZM	E.CAPA. I.M	CA-D702T	
	C 228	QCBB1HK-151Y	C CAPACITOR	CA-D702T	
	C 229	QCBB1HK-561Y	C CAPACITOR	CA-D702T	
	C 230	QETC1HM-225ZM	E.CAPA. I.M	CA-D702T	
	C 231	QCGB1HK-102	C CAPACITOR	CA-D702T	
	C 232	QCGB1HK-102	C CAPACITOR	CA-D702T	
	C 233	QCGB1HK-102	C CAPACITOR	CA-D702T	
	C 234	QCVB1CN-103Y	C CAPACITOR	CA-D702T	
	C 235	QFLC1HJ-103ZM	M CAPACITOR	CA-D702T	
	C 801	QCGB1HK-102	C CAPACITOR	1000PF 10% 50V	
	C 802	QCGB1HK-102	C CAPACITOR	1000PF 10% 50V	
	C 803	QCS11HJ-220	C CAPACITOR	22PF 5% 50V	
	C 804	QCS11HJ-220	C CAPACITOR	22PF 5% 50V	
	C 805	QCS31HJ-390Z	C CAPACITOR	39PF 5% 50V	
	C 806	QCS31HJ-390Z	C CAPACITOR	39PF 5% 50V	
	C 807	QCS11HJ-220	C CAPACITOR	22PF 5% 50V	
	C 808	QCS11HJ-220	C CAPACITOR	22PF 5% 50V	
	C 809	QEK60JM-227ZM	E.CAPA. I.M	220MF 20% 6.3V	
	C 810	QEK40JM-227	E CAPACITOR	220MF 20% 6.3V	
	C 811	QER41AM-227N	E.CAPA. I.M	220MF 20% 10V	
	C 812	QCGB1HK-102	C CAPACITOR	1000PF 10% 50V	

BLOCK NO. 03

⚠	REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
	C 814	QCBB1HK-221Y	C CAPACITOR	220PF 10% 50V	
	C 815	QCBB1HK-221Y	C CAPACITOR	220PF 10% 50V	
	C 816	QFV71HJ-124ZM	TF CAPACITOR	.12MF 5% 50V	
	C 821	QETN1HM-226Z	E CAPACITOR	22MF 20% 50V	
	C 822	QETN1HM-226Z	E CAPACITOR	22MF 20% 10V	
	C 840	QFLB1HJ-222	M CAPACITOR	CA-D752TR	B,E,EN
	C 841	QCGB1HK-102	C CAPACITOR	1000PF 10% 50V	
	C 842	QCXB1CM-222Y	C CAPACITOR	2200PF 20% 16V	
	C 843	QCGB1HK-102	C CAPACITOR	1000PF 10% 50V	
	C 843	QCGB1HK-102	C CAPACITOR	1000PF 10% 50V	
	C 844	QCGB1HK-102	C CAPACITOR	CA-702T	
	C 844	QCGB1HK-102	C CAPACITOR	CA-D752TR	EE
	C 845	QCGB1HK-102	C CAPACITOR	CA-D752TR	EE
	C 845	QCGB1HK-102	C CAPACITOR	CA-D702T	
	C 900	QCVB1CN-103Y	C CAPACITOR	.010MF 30% 16V	
	C 901	QCVB1CN-103Y	C CAPACITOR	.010MF 30% 16V	
	C 902	QCGB1HK-102	C CAPACITOR	1000PF 10% 50V	
	C 903	QER50JM-476	E.CAPA. I.M	47MF 20% 6.3V	
	CN015	EMV5163-011R	CONECTOR		
	CN421	EMV5163-009R	CONNECTOR	CA-D752TR	EE
	CN713	EMV7163-007	CONNECTOR	MAIN AMP	
	CN714	EMV7163-006	CONNECTOR	SURROUND AMP	
	CN801	QGF1201F3-20	FFC/FPC CONNE		
	CN802	VMC0163-R16	CONNECTOR		
	CN803	EMV7160-011	CONNECTOR		
	CN804	VMC0261-R12	VMC0332-R12		
	C1050	QCVB1CN-103Y	C CAPACITOR	.010MF 30% 16V	
⚠	C1051	QFV41HJ-104ZM	TF CAPACITOR	CA-D752TR	B,E,EN
⚠	C1052	QFLC1HJ-683ZM	TF CAPACITOR	CA-D752TR	B,E,EN
	C1053	QCXB1CM-222Y	C CAPACITOR	2200PF 20% 16V	
	C1054	QCXB1CM-222Y	C CAPACITOR	2200PF 20% 16V	
	C1055	QFLC1HJ-393ZM	M CAPACITOR	.039MF 5% 50V	
	C1056	QFLC1HJ-393ZM	M CAPACITOR	.039MF 5% 50V	
	C1057	QCFB1HZ-223	C CAPACITOR	.022MF +80:-20% 50V	
	C1058	QCFB1HZ-223	C CAPACITOR	.022MF +80:-20% 50V	
	C1059	QFLC1HJ-393ZM	M CAPACITOR	.039MF 5% 50V	
	D 100	MA700	ZENER DIODE	CA-D752TR	EE
	D 101	MA700	ZENER DIODE	CA-D752TR	EE
	D 110	1SS133	SI DIODE	CA-D752TR	EE
	D 111	1SS133	SI DIODE	CA-D752TR	EE
	D 200	MTZ5.1B	ZENER DIODE	CA-D702T	
	D 801	1SS133-T2	DIODE		
	D 802	1SS119-02	SI DIODE		
	D 803	1SS119-02	SI DIODE		
	D 804	1SS119-02	SI DIODE		
	D 805	1SS133-T2	DIODE		
	D 806	SLR-342VC-T	LED I.M		
	D 807	SLR-342MCA47	LED I.M		
	D 808	SLR-342MCA47	LED I.M		
	D 809	SLR-342MCA47	LED I.M		
	D 810	SLR-342MCA47	LED I.M		
	D 811	SLR-342MCA47	LED I.M		
	D 812	SLR-342MCA47	LED I.M		
	D 813	SLR-342MCA47	LED I.M		
	D 820	1SS133-T2	DIODE		

BLOCK NO. 03

⚠	REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
	D 910	SLR-342MCA47	LED I.M		
	D 911	SLR-342MCA47	LED I.M		
	D 912	SLR-342MCA47	LED I.M		
	D 913	SLR-342MCA47	LED I.M		
	D 914	SLR-342MCA47	LED I.M		
	D 915	SLR-342MCA47	LED I.M		
	D 916	SLR-342MCA47	LED I.M		
	D 917	SLR-342MCA47	LED I.M		
	D 918	SLR-342VC-T	LED I.M		
	D 919	1SS133-T2	DIODE		
	D 920	1SS133-T2	DIODE	CA-D702T	
	D 921	1SS133-T2	DIODE	CA-D702T	
	D1041	1SS133-T2	DIODE		
	D1042	1SS133-T2	DIODE		
	FLHOL	GV30005-001AKP	FL HOLDER		
	FLSPA	E3400-439	FELT SPACER		
	FL801	QLF0040-001	FL TUBE		
	FW202	EWR35D-21LSV		CA-D702T	
	FW411	EWR37D-10LS	FLAT WIRE		
	FW801	VWSC06-093K3K	EF FLAT WIRE		
	FW802	VWSC06-093K3K	EF FLAT WIRE		
	FW851	EWR34D-25LS	FLAT WIRE	H.PONE WIRE	
	IC 6	BU4066BC	IC	CA-D752TR	EE
	IC 7	BA15218	IC	CA-D752TR	EE
	IC201	BU9253AS	IC	CA-D702T	
	IC202	BA15218N	IC	CA-D702T	
	IC801	UPD780206GF-039	IC		
	IC802	NJU3718L	IC		
	IC900	GP1U261X	IR DETECT UNIT		
	J 81	EMB10TV-401AJ3	SPK.TERMINAL		
	J 83	QNN0197-001	PIN JACK		
	J 201	QNS0080-001	6.3 JACK	CA-D702T	
	J 202	QNS0080-001	6.3 JACK	CA-D702T	
	J 850	QNS0032-001	JACK	HEAD PHONE	
	JS900	QSW0538-001	ROTARY ENCODER		
	L 100	QQR0522-001	COIL	CA-D752TR	EE
	L 801	QQL29BJ-100Z	INDUCTOR		
	L 802	VQP0026-470Z	INDUCTOR		
	L 803	VQP0018-220	INDUCTOR		
	L 804	VQP0026-470Z	INDUCTOR		
	L 805	VQP0026-470Z	INDUCTOR		
	L 807	VQZ0048-009	INDUCTOR		
	L 840	VQZ0048-009	INDUCTOR	CA-D752TR	B,E,EN
	L 841	VQP0018-470	INDUCTOR	CA-D752TR	B,E,EN
	L 842	VQP0018-470	INDUCTOR	CA-D752TR	B,E,EN
	PW 3	FMWE350-124KNT		CA-D702T	
	Q 100	2SC2785	TRANSISTOR	CA-D752TR	EE
	Q 101	DTC144ESA-T	D.TR.I.M	CA-D752TR	EE
	Q 102	2SC2785	TRANSISTOR	CA-D752TR	EE
	Q 200	DTC114ESA-T	D.TRANSISTOR	CA-D702T	
	Q 801	2SC2668(O)	TRANSISTOR		
	Q 802	2SC2668(O)	TRANSISTOR		
	Q 803	DTA114ES	D.TRANSISTOR		
	Q 804	DTC114ESA-T	D.TRANSISTOR		
	Q 805	DTC114ESA-T	D.TRANSISTOR		

BLOCK NO. 03

⚠	REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
	Q 806	DTC114ESA-T	D.TRANSISTOR		
	Q 807	DTC114ESA-T	D.TRANSISTOR		
	Q 808	DTC114ESA-T	D.TRANSISTOR		
	Q 809	2SC2785	TRANSISTOR		
	Q 810	DTC114TSA-T	D.TR.I.M	CA-D702T	
	Q 811	DTC114TSA-T	D.TR.I.M	CA-D702T	
	Q 910	DTC114ESA-T	D.TRANSISTOR		
	Q 912	DTC114ESA-T	D.TRANSISTOR		
	Q 914	DTC114ESA-T	D.TRANSISTOR		
	Q 916	DTC114ESA-T	D.TRANSISTOR		
	R 100	QRD161J-822	C RESISTOR	CA-D752TR	EE
	R 101	QRD161J-563	C RESISTOR	CA-D752TR	EE
	R 102	QRD161J-103	C RESISTOR	CA-D752TR	EE
	R 103	QRD161J-563	C RESISTOR	CA-D752TR	EE
	R 104	QRD167J-682	C RESISTOR	CA-D752TR	EE
	R 105	QRD161J-184	C RESISTOR	CA-D752TR	EE
	R 106	QRD161J-224	C RESISTOR	CA-D752TR	EE
	R 107	QRD161J-513	C RESISTOR	CA-D752TR	EE
	R 109	QRD161J-224	C RESISTOR	CA-D752TR	EE
	R 110	QRD161J-224	C RESISTOR	CA-D752TR	EE
	R 111	QRD161J-223	C RESISTOR	CA-D752TR	EE
	R 112	QRD161J-123	C RESISTOR	CA-D752TR	EE
	R 113	QRD161J-103	C RESISTOR	CA-D752TR	EE
	R 114	QRD161J-103	C RESISTOR	CA-D752TR	EE
	R 115	QRD161J-103	C RESISTOR	CA-D752TR	EE
	R 116	QRD161J-333	C RESISTOR	CA-D752TR	EE
	R 117	QRD161J-473	C RESISTOR	CA-D752TR	EE
	R 118	QRD161J-473	C RESISTOR	CA-D752TR	EE
	R 200	QRD161J-472	C RESISTOR	CA-D702T	
	R 201	QRD161J-472	C RESISTOR	CA-D702T	
	R 210	QRD161J-123	C RESISTOR	CA-D702T	
	R 211	QRD161J-333	C RESISTOR	CA-D702T	
	R 212	QRD161J-333	C RESISTOR	CA-D702T	
	R 213	QRD161J-103	C RESISTOR	CA-D702T	
	R 214	QRD161J-203	C RESISTOR	CA-D702T	
	R 215	QRD161J-822	C RESISTOR	CA-D702T	
	R 216	QRD161J-203	C RESISTOR	CA-D702T	
	R 217	QRD161J-153	C RESISTOR	CA-D702T	
	R 218	QRD161J-103	C RESISTOR	CA-D702T	
	R 219	QRD161J-472	C RESISTOR	CA-D702T	
	R 220	QRD161J-392	C RESISTOR	CA-D702T	
	R 224	QRD161J-221	C RESISTOR	CA-D702T	
	R 225	QRD161J-103	C RESISTOR	CA-D702T	
	R 226	QRD161J-203	C RESISTOR	CA-D702T	
	R 227	QRD161J-102	C RESISTOR	CA-D702T	
	R 228	QRD161J-331	C RESISTOR	CA-D702T	
	R 230	QRD161J-104	C RESISTOR	CA-D702T	
	R 234	QRD161J-104	C RESISTOR	CA-D702T	
	R 236	QRD161J-221	C RESISTOR	CA-D702T	
	R 239	QRD161J-152	C RESISTOR	CA-D702T	
	R 240	QRD161J-391	C RESISTOR	CA-D702T	
	R 241	QRD161J-823	C RESISTOR	CA-D702T	
	R 801	QRD161J-103	C RESISTOR	10K 5% 1/4W	
	R 802	QRD161J-103	C RESISTOR	10K 5% 1/4W	
	R 803	QRD161J-472	C RESISTOR	4.7K 5% 1/4W	

BLOCK NO. 03

⚠	REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
	R 804	QRD161J-472	C RESISTOR	4.7K 5% 1/4W	
	R 805	QRD161J-105	C RESISTOR	1.0M 5% 1/4W	
	R 806	QRD161J-224	C RESISTOR	220K 5% 1/4W	
	R 807	QRD161J-201	C.RES. I.M	200 5% 1/4W	
	R 808	QRD161J-201	C.RES. I.M	200 5% 1/4W	
	R 809	QRD161J-201	C.RES. I.M	200 5% 1/4W	
	R 810	QRD161J-201	C.RES. I.M	200 5% 1/4W	
	R 811	QRD161J-201	C.RES. I.M	200 5% 1/4W	
	R 812	QRD161J-201	C.RES. I.M	200 5% 1/4W	
	R 813	QRD161J-201	C.RES. I.M	200 5% 1/4W	
	R 815	QRD161J-331	C RESISTOR	330 5% 1/4W	
	R 816	QRD167J-121	C RESISTOR	120 5% 1/4W	
	R 817	QRD161J-102	C RESISTOR	1.0K 5% 1/4W	
	R 818	QRD161J-102	C RESISTOR	1.0K 5% 1/4W	
	R 819	QRD161J-102	C RESISTOR	1.0K 5% 1/4W	
	R 820	QRD161J-102	C RESISTOR	1.0K 5% 1/4W	
	R 821	QRD161J-472	C RESISTOR	4.7K 5% 1/4W	
	R 822	QRD161J-103	C RESISTOR	10K 5% 1/4W	
	R 823	QRD161J-103	C RESISTOR	10K 5% 1/4W	
	R 824	QRD161J-103	C RESISTOR	10K 5% 1/4W	
	R 827	QRD161J-563	C RESISTOR	56K 5% 1/4W	
	R 828	QRD161J-154	C RESISTOR	150K 5% 1/4W	
	R 829	QRD161J-103	C RESISTOR	CA-D702T	
	R 847	QRD161J-102	C RESISTOR	1.0K 5% 1/4W	
	R 848	QRD161J-102	C RESISTOR	1.0K 5% 1/4W	
	R 856	QRD161J-102	C RESISTOR	1.0K 5% 1/4W	
	R 857	QRD161J-102	C RESISTOR	1.0K 5% 1/4W	
	R 860	QRD161J-104	C RESISTOR	100K 5% 1/4W	
	R 861	QRD161J-104	C RESISTOR	100K 5% 1/4W	
	R 862	QRD161J-102	C RESISTOR	1.0K 5% 1/4W	
	R 863	QRD161J-104	C RESISTOR	100K 5% 1/4W	
	R 864	QRD161J-102	C RESISTOR	1.0K 5% 1/4W	
	R 865	QRD161J-102	C RESISTOR	1.0K 5% 1/4W	
	R 866	QRD161J-104	C RESISTOR	100K 5% 1/4W	
	R 867	QRD161J-104	C RESISTOR	100K 5% 1/4W	
	R 868	QRD161J-104	C RESISTOR	100K 5% 1/4W	
	R 872	QRD161J-103	C RESISTOR	10K 5% 1/4W	
	R 874	QRD161J-103	C RESISTOR	10K 5% 1/4W	
	R 875	QRD161J-103	C RESISTOR	10K 5% 1/4W	
	R 877	QRD161J-563	C RESISTOR	56K 5% 1/4W	
	R 878	QRD161J-103	C RESISTOR	10K 5% 1/4W	
	R 879	QRD161J-103	C RESISTOR	10K 5% 1/4W	
	R 880	QRD161J-103	C RESISTOR	10K 5% 1/4W	
	R 881	QRD161J-104	C RESISTOR	100K 5% 1/4W	
	R 882	QRD161J-103	C RESISTOR	10K 5% 1/4W	
	R 883	QRD161J-103	C RESISTOR	10K 5% 1/4W	
	R 884	QRD161J-103	C RESISTOR	10K 5% 1/4W	
	R 885	QRD161J-103	C RESISTOR	10K 5% 1/4W	
	R 886	QRD161J-224	C RESISTOR	220K 5% 1/4W	
	R 887	QRD161J-563	C RESISTOR	56K 5% 1/4W	
	R 900	QRD161J-103	C RESISTOR	10K 5% 1/4W	
	R 901	QRD161J-103	C RESISTOR	10K 5% 1/4W	
	R 910	QRD161J-201	C.RES. I.M	200 5% 1/4W	
	R 911	QRD161J-201	C.RES. I.M	200 5% 1/4W	
	R 912	QRD161J-201	C.RES. I.M	200 5% 1/4W	

BLOCK NO. 03

⚠	REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
	R 913	QRD161J-201	C.RES. I.M	200 5% 1/4W	
	R 914	QRD161J-201	C.RES. I.M	200 5% 1/4W	
	R 915	QRD161J-201	C.RES. I.M	200 5% 1/4W	
	R 916	QRD161J-201	C.RES. I.M	200 5% 1/4W	
	R 917	QRD161J-201	C.RES. I.M	200 5% 1/4W	
	R 951	QRD161J-102	C RESISTOR	1.0K 5% 1/4W	
	R 952	QRD161J-102	C RESISTOR	1.0K 5% 1/4W	
	R 953	QRD161J-122	C RESISTOR	1.2K 5% 1/4W	
	R 954	QRD161J-152	C RESISTOR	1.5K 5% 1/4W	
	R 955	QRD161J-222	C RESISTOR	2.2K 5% 1/4W	
	R 956	QRD161J-272	C RESISTOR	2.7K 5% 1/4W	
	R 957	QRD161J-392	C RESISTOR	3.9K 5% 1/4W	
	R 958	QRD167J-562	C RESISTOR	5.6K 5% 1/4W	
	R 959	QRD161J-103	C RESISTOR	10K 5% 1/4W	
	R 960	QRE141J-183Y	C RESISTOR	18K 5% 1/4W	
	R 961	QRD161J-102	C RESISTOR	1.0K 5% 1/4W	
	R 962	QRD161J-102	C RESISTOR	1.0K 5% 1/4W	
	R 963	QRD167J-562	C RESISTOR	5.6K 5% 1/4W	
	R 964	QRD161J-103	C RESISTOR	10K 5% 1/4W	
	R 965	QRD161J-122	C RESISTOR	1.2K 5% 1/4W	
	R 966	QRD161J-152	C RESISTOR	1.5K 5% 1/4W	
	R 967	QRD161J-222	C RESISTOR	2.2K 5% 1/4W	
	R 968	QRD161J-272	C RESISTOR	2.7K 5% 1/4W	
	R 969	QRD161J-392	C RESISTOR	3.9K 5% 1/4W	
	R 970	QRD161J-102	C RESISTOR	1.0K 5% 1/4W	
	R 971	QRD161J-102	C RESISTOR	1.0K 5% 1/4W	
	R 972	QRD161J-122	C RESISTOR	1.2K 5% 1/4W	
	R 973	QRD161J-152	C RESISTOR	1.5K 5% 1/4W	
	R 974	QRD161J-222	C RESISTOR	2.2K 5% 1/4W	
	R 975	QRD161J-272	C RESISTOR	2.7K 5% 1/4W	
	R 976	QRD161J-392	C RESISTOR	3.9K 5% 1/4W	
	R 977	QRD167J-562	C RESISTOR	5.6K 5% 1/4W	
	R 978	QRD161J-103	C RESISTOR	10K 5% 1/4W	
	R 979	QRD161J-102	C RESISTOR	1.0K 5% 1/4W	
	R 980	QRD161J-102	C RESISTOR	1.0K 5% 1/4W	
	R 981	QRD161J-122	C RESISTOR	1.2K 5% 1/4W	
	R 982	QRD161J-152	C RESISTOR	1.5K 5% 1/4W	
	R 983	QRD161J-222	C RESISTOR	2.2K 5% 1/4W	
	R 984	QRD161J-272	C RESISTOR	2.7K 5% 1/4W	
	R 985	QRD161J-392	C RESISTOR	3.9K 5% 1/4W	
	R 990	QRD161J-473	C RESISTOR	470K 5% 1/4W	
	R 991	QRD161J-823	C RESISITOR	CA-D752TR	
	R 991	QRD161J-333	C RESISTOR	CA-D702T	
	R 992	QRE141J-183Y	C RESISTOR	18K 5% 1/4W	
	R 993	QRE141J-183Y	C RESISTOR	18K 5% 1/4W	
	RA801	QRB169J-104	R.NETWORK	100K 5% 1/6W	
	RA802	QRB169J-104	R.NETWORK	100K 5% 1/6W	
	RY 1	ESK7D24-212J4	RELAY		
	RY 2	ESK7D24-212J4	RELAY		
⚠	R1051	QRD14CJ-4R7SX	C RESISTOR	4.7 5% 1/4W	
⚠	R1052	QRD14CJ-4R7SX	C RESISTOR	4.7 5% 1/4W	
	S 951	QSW0674-001Z	TACT SW		
	S 952	QSW0674-001Z	TACT SW		
	S 953	QSW0674-001Z	TACT SW		
	S 954	QSW0674-001Z	TACT SW		

BLOCK NO. 03

⚠	REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
	S 955	QSW0674-001Z	TACT SW		
	S 956	QSW0674-001Z	TACT SW		
	S 957	QSW0674-001Z	TACT SW		
	S 958	QSW0674-001Z	TACT SW		
	S 959	QSW0674-001Z	TACT SW		
	S 960	QSW0674-001Z	TACT SW		
	S 961	QSW0674-001Z	TACT SW		
	S 962	QSW0674-001Z	TACT SW		
	S 963	QSW0674-001Z	TACT SW		
	S 964	QSW0674-001Z	TACT SW		
	S 965	QSW0674-001Z	TACT SW		
	S 966	QSW0674-001Z	TACT SW		
	S 967	QSW0674-001Z	TACT SW		
	S 968	QSW0674-001Z	TACT SW		
	S 969	QSW0674-001Z	TACT SW		
	S 970	QSW0674-001Z	TACT SW		
	S 971	QSW0674-001Z	TACT SW		
	S 972	QSW0674-001Z	TACT SW		
	S 973	QSW0674-001Z	TACT SW		
	S 974	QSW0674-001Z	TACT SW		
	S 975	QSW0674-001Z	TACT SW		
	S 976	QSW0674-001Z	TACT SW		
	S 977	QSW0674-001Z	TACT SW		
	S 978	QSW0674-001Z	TACT SW		
	S 979	QSW0674-001Z	TACT SW		
	S 980	QSW0674-001Z	TACT SW		
	S 981	QSW0674-001Z	TACT SW		
	S 982	QSW0674-001Z	TACT SW	CA-D752TR	B,E,EE
	S 983	QSW0674-001Z	TACT SWITCH	CA-D752TR	
	S 984	QSW0674-001Z	TACT SW	CA-D752TR	
	S 985	QSW0674-001Z	TACT SW	CA-D752TR	
	SP801	VYH7653-001	IC HOLDER		
	VR100	QVPA601-103A	V.RES. I.M	CA-D752TR	EE
	VR200	QVQ0045-B54	V RESISTOR	CA-D702T	
	X 801	QAX0410-001Z	CERA LOCK		
	X 802	QAX0401-001	CRYSTAL		

■Electrical Parts List(CD Servo Control P.C.B.)

⚠	Item	Parts Number	Description	Area
		I.C.S		
	IC251	UPD78055GCA28	I.C.	
	IC601	AN8806SB	IC(MONO-ANA)	
	IC651	MN35510	IC(DIGI-MOS)	
	IC801	BA6897FP-W	IC(MONO-ANA)	
	IC851	TA8409S	IC(MONO-ANA)	
	IC852	TA8409S	IC(MONO-ANA)	
		TRANSISTORS		
	Q291	2SB1357/EF/-T	SI TRANSISTOR	
	Q631	2SA1037AK/RS/-X	SI TRANSISTOR	
	Q842	DTA144ES-T	DIGI TRANSISTOR	
		CAPACITORS		
	C251	NCS21HJ-100X	10PF 50V CER. C	
	C252	NCS21HJ-100X	10PF 50V CER. C	
	C253	NCB21EK-104X	0.1MF 25V CER.C	
	C254	QERF1AM-476Z	47MF 10V AL.E.C	
	C281	NCB21HK-223X	0.022MF 50V CER.C	
	C291	QERF1AM-476Z	47MF 10V AL.E.C	
	C601	NCB21HK-102X	1000PF 50V CER.C	
	C602	NCB21HK-102X	1000PF 50V CER.C	
	C603	NCB21HK-223X	0.022MF 50V CER.C	
	C604	NCB21HK-223X	0.022MF 50V CER.C	
	C605	NCS21HJ-271X	270PF 50V CER.C	
	C606	NCS21HJ-470X	47PF 50V CER.C	
	C607	NCB21HK-223X	0.022MF 50V CER.C	
	C608	NCB21HK-223X	0.022MF 50V CER.C	
	C609	NCB21HK-102X	1000PF 50V CER.C	
	C610	NCB21EK-104X	0.1MF 25V CER.C	
	C611	NCB21EK-104X	0.1MF 25V CER.C	
	C612	QER41HM-105	1MF 50V AL.E.C	
	C613	NCS21HJ-101X	100PF 50V CER.C	
	C614	NCB21HK-273X	0.027MF 50V CER.C	
	C615	NCB21HK-472X	4700PF 50V CER.C	
	C616	NCB21HK-103X	0.01MF 50V CER.C	
	C617	NCS21HJ-331X	330PF 50V CER.C	
	C621	NCB21EK-104X	0.1MF 25V CER.C	
	C623	NCF21CZ-105X	1MF 16V CER.C	
	C624	QER41AM-107	100MF 10V AL.E.C	
	C631	QER41CM-106	10MF 16V AL.E.C	
	C632	NCF21CZ-105X	1MF 16V CER.C	
	C633	NCB21HK-223X	0.022MF 50V CER.C	
	C651	NCS21HJ-120X	12PF 50V CER.C	
	C652	NCS21HJ-150X	15PF 50V CER.C	
	C653	NCB21EK-104X	0.1MF 25V CER.C	
	C654	NCB21HK-223X	0.022MF 50V CER.C	
	C655	QER41AM-227	220MF 10V AL.E.C	
	C656	NCB21EK-104X	0.1MF 25V CER.C	
	C657	NCB21HK-222X	2200PF 50V CER.C	
	C658	NCB21HK-222X	2200PF 50V CER.C	
	C661	NCB21EK-104X	0.1MF 25V CER.C	
	C662	QER41AM-107	100MF 10V AL.E.C	
	C663	NCB21EK-104X	0.1MF 25V CER.C	
	C664	NCB21HK-223X	0.022MF 50V CER.C	
	C665	NCB21HK-223X	0.022MF 50V CER.C	
	C666	NCS21HJ-471X	470PF 50V CER.C	
	C667	NCF21CZ-105X	1MF 16V CER.C	
	C668	NCB21HK-473X	0.047MF 50V CER.C	
	C671	NCB21EK-104X	0.1MF 25V CER.C	
	C672	QER41AM-107	100MF 10V AL.E.C	
	C801	NCB21HK-103X	0.01MF 50V CER.C	
	C802	NCB21HK-103X	0.01MF 50V CER.C	
	C811	NCS21HJ-101X	100PF 50V CER.C	
	C812	NCS21HJ-101X	100PF 50V CER.C	
	C813	NCS21HJ-101X	100PF 50V CER.C	
	C814	NCS21HJ-101X	100PF 50V CER.C	
	C821	NCF21CZ-105X	100PF 50V CER.C	

⚠	Item	Parts Number	Description	Area
	C822	QER41AM-227	220MF 10V AL.E.C	
	C851	QER41CM-106	10MF 16V AL.E.C	
	C852	QER41CM-106	10MF 16V AL.E.C	
	C855	NCB21EK-104X	0.1MF 25V CER.C	
	C859	NCF21CZ-105X	1MF 16V CER.C	
	C860	NCF21CZ-105X	1MF 16V CER.C	
		RESISTORS		
	R251	NRSA02J-102X	M.G.RESISITOR	
	R252	NRSA02J-102X	M.G.RESISITOR	
	R253	NRSA02J-102X	M.G.RESISITOR	
	R254	NRSA02J-102X	M.G.RESISITOR	
	R255	NRSA02J-102X	M.G.RESISITOR	
	R256	NRSA02J-102X	M.G.RESISITOR	
	R257	NRSA02J-102X	M.G.RESISITOR	
	R258	NRSA02J-102X	M.G.RESISITOR	
	R259	NRSA02J-101X	M.G.RESISITOR	
	R260	NRSA02J-102X	M.G.RESISITOR	
	R261	NRSA02J-102X	M.G.RESISITOR	
	R262	NRSA02J-102X	M.G.RESISITOR	
	R263	NRSA02J-102X	M.G.RESISITOR	
	R264	NRSA02J-102X	M.G.RESISITOR	
	R265	NRSA02J-223X	M.G.RESISITOR	
	R266	NRSA02J-102X	M.G.RESISITOR	
	R267	NRSA02J-102X	M.G.RESISITOR	
	R268	NRSA02J-102X	M.G.RESISITOR	
	R269	NRSA02J-102X	M.G.RESISITOR	
	R270	NRSA02J-223X	M.G.RESISITOR	
	R271	NRSA02J-223X	M.G.RESISITOR	
	R272	NRSA02J-223X	M.G.RESISITOR	
	R273	NRSA02J-223X	M.G.RESISITOR	
	R274	NRSA02J-102X	M.G.RESISITOR	
	R275	NRSA02J-102X	M.G.RESISITOR	
	R276	NRSA02J-102X	M.G.RESISITOR	
	R277	NRSA02J-102X	M.G.RESISITOR	
	R278	NRSA02J-102X	M.G.RESISITOR	
	R279	NRSA02J-102X	M.G.RESISITOR	
	R281	NRSA02J-102X	M.G.RESISITOR	
	R282	NRSA02J-102X	M.G.RESISITOR	
	R283	NRSA02J-102X	M.G.RESISITOR	
	R284	NRSA02J-102X	M.G.RESISITOR	
	R285	NRSA02J-102X	M.G.RESISITOR	
	R286	NRSA02J-102X	M.G.RESISITOR	
	R287	NRSA02J-102X	M.G.RESISITOR	
	R288	NRSA02J-102X	M.G.RESISITOR	
	R289	NRSA02J-223X	M.G.RESISITOR	
	R291	NRSA02J-122X	M.G.RESISITOR	
	R292	NRSA02J-103X	M.G.RESISITOR	
	R293	NRSA02J-102X	M.G.RESISITOR	
	R601	NRSA02J-274X	M.G.RESISITOR	
	R602	NRSA02J-154X	M.G.RESISITOR	
	R603	NRSA02J-273X	M.G.RESISITOR	
	R604	NRSA02J-114X	M.G.RESISITOR	
	R605	NRSA02J-104X	M.G.RESISITOR	
	R606	NRSA02J-473X	M.G.RESISITOR	
	R607	NRSA02J-822X	M.G.RESISITOR	
	R611	NRSA02J-123X	M.G.RESISITOR	
	R612	NRSA02J-125X	M.G.RESISITOR	
	R631	NRSA02J-2R2X	M.G.RESISITOR	
	R632	NRSA02J-100X	M.G.RESISITOR	
	R634	NRSA02J-120X	M.G.RESISITOR	
	R635	NRSA02J-121X	M.G.RESISITOR	
	R636	NRSA02J-910X	M.G.RESISITOR	
	R651	NRSA02J-271X	M.G.RESISITOR	
	R652	NRSA02J-220X	M.G.RESISITOR	
	R657	NRSA02J-102X	M.G.RESISITOR	
	R658	NRSA02J-102X	M.G.RESISITOR	

■Electrical Parts List(CD Servo Control P.C.B.)

⚠	Item	Parts Number	Description	Area
	R661	NRSA02J-220X	M.G.RESISITOR	
	R662	NRSA02J-471X	M.G.RESISITOR	
	R663	NRSA02J-124X	M.G.RESISITOR	
	R665	NRSA02J-683X	M.G.RESISITOR	
	R666	NRSA02J-155X	M.G.RESISITOR	
	R667	NRSA02J-562X	M.G.RESISITOR	
	R671	NRSA02J-102X	M.G.RESISITOR	
	R672	NRSA02J-102X	M.G.RESISITOR	
	R673	NRSA02J-102X	M.G.RESISITOR	
	R674	NRSA02J-101X	M.G.RESISITOR	
	R675	NRSA02J-102X	M.G.RESISITOR	
	R676	NRSA02J-102X	M.G.RESISITOR	
	R677	NRSA02J-102X	M.G.RESISITOR	
	R678	NRSA02J-102X	M.G.RESISITOR	
	R679	NRSA02J-102X	M.G.RESISITOR	
	R680	NRSA02J-102X	M.G.RESISITOR	
	R681	NRSA02J-102X	M.G.RESISITOR	
	R682	NRSA02J-102X	M.G.RESISITOR	
	R683	NRSA02J-102X	M.G.RESISITOR	
	R684	NRSA02J-271X	M.G.RESISITOR	
	R685	NRSA02J-102X	M.G.RESISITOR	
	R686	NRSA02J-101X	M.G.RESISITOR	
	R687	NRSA02J-102X	M.G.RESISITOR	
	R688	NRSA02J-101X	M.G.RESISITOR	
	R689	NRSA02J-102X	M.G.RESISITOR	
	R690	NRSA02J-101X	M.G.RESISITOR	
	R691	NRSA02J-101X	M.G.RESISITOR	
	R692	NRSA02J-101X	M.G.RESISITOR	
	R693	NRSA02J-471X	M.G.RESISITOR	
	R694	NRSA02J-102X	M.G.RESISITOR	
	R801	NRSA02J-182X	M.G.RESISITOR	
	R802	NRSA02J-472X	M.G.RESISITOR	
	R803	NRSA02J-222X	M.G.RESISITOR	
	R804	NRSA02J-683X	M.G.RESISITOR	
	R805	NRSA02J-822X	M.G.RESISITOR	
	R806	NRSA02J-223X	M.G.RESISITOR	
	R807	NRSA02J-222X	M.G.RESISITOR	
	R808	NRSA02J-223X	M.G.RESISITOR	
	R811	NRSA02J-473X	M.G.RESISITOR	
	R831	NRSA02J-151X	M.G.RESISITOR	
	R832	NRSA02J-103X	M.G.RESISITOR	
	R842	NRSA02J-473X	M.G.RESISITOR	
	R851	NRSA02J-102X	M.G.RESISITOR	
	R852	NRSA02J-102X	M.G.RESISITOR	
	R853	NRSA02J-102X	M.G.RESISITOR	
	R854	NRSA02J-102X	M.G.RESISITOR	
	R855	NRSA02J-102X	M.G.RESISITOR	
	R856	NRSA02J-102X	M.G.RESISITOR	
	R859	NRSA02J-181X	M.G.RESISITOR	
	R861	NRSA02J-102X	M.G.RESISITOR	
	R862	NRSA02J-102X	M.G.RESISITOR	
	R863	NRSA02J-102X	M.G.RESISITOR	
	R864	NRSA02J-102X	M.G.RESISITOR	
	R865	NRSA02J-102X	M.G.RESISITOR	
	R866	NRSA02J-102X	M.G.RESISITOR	
	R871	NRSA02J-223X	M.G.RESISITOR	
	R872	NRSA02J-223X	M.G.RESISITOR	
	R873	NRSA02J-223X	M.G.RESISITOR	
	R874	NRSA02J-223X	M.G.RESISITOR	
	R875	NRSA02J-223X	M.G.RESISITOR	
	R876	NRSA02J-223X	M.G.RESISITOR	
	R880	NRSA02J-102X	M.G.RESISITOR	
	R881	NRSA02J-102X	M.G.RESISITOR	
	R882	NRSA02J-102X	M.G.RESISITOR	
	R883	NRSA02J-102X	M.G.RESISITOR	
	R884	NRSA02J-102X	M.G.RESISITOR	
	R885	NRSA02J-102X	M.G.RESISITOR	
	R886	NRSA02J-102X	M.G.RESISITOR	
	R887	NRSA02J-102X	M.G.RESISITOR	
	R890	NRSA02J-223X	M.G.RESISITOR	
	R891	NRSA02J-223X	M.G.RESISITOR	
	R892	NRSA02J-223X	M.G.RESISITOR	
	R893	NRSA02J-223X	M.G.RESISITOR	
	R894	NRSA02J-223X	M.G.RESISITOR	
	R895	NRSA02J-223X	M.G.RESISITOR	
	R896	NRSA02J-223X	M.G.RESISITOR	
	R897	NRSA02J-223X	M.G.RESISITOR	
		OTHERS		
	L851	QQL01BK-100Z	INDUCTOR	
	L853	QQL01BK-100Z	INDUCTOR	
	L854	QQL01BK-100Z	INDUCTOR	
	X251	QAX0360-001Z	CRYSTAL	
	X651	QAX0413-001Z	CRYSTAL	
	CN151	QGF1016F1-15	CONNECT TERMINAL	
	CN152	QGA2001F1-12	CONNECT TERMINAL	
	CN601	QGF1016F1-15	CONNECT TERMINAL	
	CN651	QGF1016F1-19	CONNECT TERMINAL	
	CN652	QGF1016F1-05	CONNECT TERMINAL	
	CN653	QGF1016F1-13	CONNECT TERMINAL	
	CN801	QGA2001C1-06	CONNECTOR	
	CN851	QGD2503F1-03	CONNECT TERMINAL	
	CN854	QGB2016K1-07	CONNECT TERMINAL	
	CN855	QGG2002M4-10	CONNECT TERMINAL	

■Electrical Parts List(CD Select Switch P.C.B.)

⚠	Item	Parts Number	Description	Area
		OTHERS		
	CN804	QGB2016J1-07	CONNECT TERMINAL	
	CN805	QGB2021L1-10	CONNECT TERMINAL	
	SW 1	QSW0507-001	LEVER SWITCH	
	SW 2	QSW0507-001	LEVER SWITCH	
	SW 3	QSW0507-001	LEVER SWITCH	
	SW 4	QSW0507-001	LEVER SWITCH	
	SW 5	QSW0507-001	LEVER SWITCH	
	SW 6	QSW0507-001	LEVER SWITCH	

■Electrical Parts List (Head Amp & Mechanism Control P.C.B.)

⚠	Item	Parts Number	Description	Area
		I.C.S		
	IC301	BA3126N	IC(MONO-ANA)	
	IC302	AN7345K	IC(M)	
	IC303	BU4094BCF-X	IC(M)	
	IC304	BU4094BCF-X	IC(M)	
		DIODES		
	D301	MA704A-X	SI DIODE	
	D302	HSM2838C-W	DIODE	
	D307	HZM5.1NB2-X	ZEMER DIODE	
	D308	HZM5.1NB2-X	ZEMER DIODE	
	D309	MA704A-X	ZEMER DIODE	
		TRANSISTORS		
	Q101	DTC114TKA-X	DIGITAL TRANSISTOR	
	Q102	DTC144TKA-X	DIGITAL TRANSISTOR	
	Q103	DTC144EKA-X	DIGITAL TRANSISTOR	
	Q104	DTC114TKA-X	DIGITAL TRANSISTOR	
	Q105	2SC2001/LK/-T	SI TRANSISITOR	
	Q201	DTC114TKA-X	DIGITAL TRANSISTOR	
	Q202	DTC144TKA-X	DIGITAL TRANSISTOR	
	Q203	DTC144EKA-X	DIGITAL TRANSISTOR	
	Q204	DTC114TKA-X	DIGITAL TRANSISTOR	
	Q205	2SC2001/LK/-T	SI TRANSISTOR	
	Q301	DTC144TKA-X	DIGITAL TRANSISTOR	
	Q302	2SC2001/K/-T	DIGITAL TRANSISTOR	
	Q303	2SC2001/K/-T	DIGITAL TRANSISTOR	
	Q304	2SC2001/LK/-T	DIGITAL TRANSISTOR	
	Q305	2SC2001/LK/-T	DIGITAL TRANSISTOR	
	Q306	2SC2412K/RS/-X	SI TRANSISTOR	
	Q307	2SC2412K/RS/-X	SI TRANSISTOR	
	Q308	2SC2412K/RS/-X	SI TRANSISTOR	
	Q309	2SC2412K/RS/-X	SI TRANSISTOR	
	Q312	2SB562/C/-T	SI TRANSISTOR	
	Q313	2SC2412K/RS/-X	SI TRANSISTOR	
	Q314	2SB562/C/-T	SI TRANSISTOR	
	Q315	2SC2412K/RS/-X	SI TRANSISTOR	
	Q316	2SA952/LK/-T	SI TRANSISTOR	
	Q317	DTC124EKA-X	SI TRANSISTOR	
	Q318	DTA144EKA-X	DIGITAL TRANSISTOR	
	Q319	DTC144EKA-X	DIGITAL TRANSISTOR	
	Q320	DTC144EKA-X	DIGITAL TRANSISTOR	
	Q321	DTC144EKA-X	DIGITAL TRANSISTOR	
	Q322	DTC144EKA-X	DIGITAL TRANSISTOR	
	Q323	2SC2412K/RS/-X	SI TRANSISTOR	
		CAPACITORS		
	C101	NCS21HJ-561X	560PF 50V CER.C	
	C102	NCS21HJ-331X	330PF 50V CER.C	
	C103	NCS21HJ-561X	560PF 50V CER.C	
	C104	NCS21HJ-221X	220PF 50V CER.C	
	C105	QEK40JM-227	220MF 6.3V AL.E.C	
	C106	NCB21HK-333X	0.033MF 50V CER.C	
	C107	QEK41EM-475	4.7MF 25V AL.E.C	
	C108	NCB21HK-393X	0.039MF 50V CER.C	
	C109	NCB21HK-563X	0.056MF 50V CER.C	
	C110	NCS21HJ-221X	220PF 50V CER.C	
	C111	QEK41HM-104	0.1MF 50V AL.E.C	
	C112	QEK41CM-106	10MF 16V AL.E.C	
	C113	NCB21HK-332X	3300PF 50V CER.C	
	C114	QEK41EM-475	4.7MF 25V AL.E.C	
	C115	NCB21HK-153X	0.015MF 50V CER.C	
	C116	NCB21HK-822X	8200PF 50V CER.C	
	C117	NCB21HK-223X	0.022MF 50V CER.C	
	C118	NCB21HK-103X	0.01MF 50V CER.C	
	C119	NCB21HK-563X	0.056MF 50V CER.C	
	C120	NCS21HJ-330X	33PF 50V CER.C	
	C201	NCS21HJ-561X	560PF 50V CER.C	
	C202	NCS21HJ-331X	330PF 50V CER.C	

⚠	Item	Parts Number	Description	Area
	C203	NCS21HJ-561X	560PF 50V CER.C	
	C204	NCS21HJ-221X	220PF 50V CER.C	
	C205	QEK40JM-227	220MF 6.3V AL.E.C	
	C206	NCB21HK-333X	0.033MF 50V CER.C	
	C207	QEK41EM-475	4.7MF 25V AL.E.C	
	C208	NCB21HK-393X	0.039MF 50V CER.C	
	C209	NCB21HK-563X	0.056MF 50V CER.C	
	C210	NCS21HJ-221X	220PF 50V CER.C	
	C211	QEK41HM-104	0.1MF 50V AL.E.C	
	C212	QEK41CM-106	10MF 16V AL.E.C	
	C213	NCB21HK-332X	3300PF 50V CER.C	
	C214	QEK41EM-475	4.7MF 25V AL.E.C	
	C215	NCB21HK-153X	0.015MF 50V CER.C	
	C216	NCB21HK-822X	8200PF 50V CER.C	
	C217	NCB21HK-223X	0.022MF 50V CER.C	
	C218	NCB21HK-103X	0.01MF 50V CER.C	
	C219	NCB21HK-563X	0.056MF 50V CER.C	
	C220	NCS21HJ-330X	33PF 50V CER.C	
	C301	QEK41CM-106	10MF 16V AL.E.C	
	C302	QEK41CM-476	47MF 16V AL.E.C	
	C303	QEK41CM-226	22MF 16V AL.E.C	
	C304	QEK41EM-475	4.7MF 25V AL.E.C	
	C305	NCB21HK-393X	0.039MF 50V CER.C	
	C306	QEK40JM-227	220MF 6.3V AL.E.C	
	C308	NCB21HK-562X	5600PF 50V CER.C	
	C309	NCB21HK-562X	5600PF 50V CER.C	
	C310	NCB21HK-223X	0.022MF 50V CER.C	
	C311	NCB21HK-682X	6800PF 50V CER.C	
	C313	QEKJ1AM-107Z	100MF 10V AL.E.C	
	C314	QCZ0205-155	1.5MF 25V CER.C	
	C315	QCZ0205-155	1.5MF 25V CER.C	
	C316	QFG32AJ-103Z	0.01MF 100V CER.C	
	C318	NCB21HK-103X	0.01MF 50V CER.C	
	C319	QFG32AJ-821Z	820PF 100V CER.C	
	C321	NCB21HK-103X	0.01MF 50V CER.C	
	C322	QFG32AJ-152Z	1500PF 100V CER.C	
	C327	QEK41CM-476	47MF 16V AL.E.C	
	C328	NCS21HJ-151X	150PF 50V CER.C	
	C329	NCS21HJ-151X	150PF 50V CER.C	
	C330	NCS21HJ-151X	150PF 50V CER.C	
	C332	NCS21HJ-151X	150PF 50V CER.C	
	C335	NCB21HK-103X	0.01MF 50V CER.C	
	C336	NCB21HK-103X	0.01MF 50V CER.C	
	C337	NCB21HK-103X	0.01MF 50V CER.C	
	C338	NCB21HK-103X	0.01MF 50V CER.C	
	C339	QEK41CM-476	47MF 16V AL.E.C	
	C340	NCB21HK-103X	0.01MF 50V CER.C	
	C341	QEKJ1AM-107Z	100MF 10V AL.E.C	
	C342	QEK41EM-475	4.7MF 25V AL.E.C	
	C343	QET41CM-106	10MF 16V AL.E.C	
	C344	NCB21HK-472X	4700PF 50V CER.C	
	C345	NCS21HJ-331X	330PF 50V CER.C	
		RESISTORS		
	R102	NRSA02J-102X	M.G.RESISTOR	
	R103	NRSA02J-183X	M.G.RESISTOR	
	R105	NRSA02J-220X	M.G.RESISTOR	
	R106	NRSA02J-392X	M.G.RESISTOR	
	R107	NRSA02J-123X	M.G.RESISTOR	
	R108	NRSA02J-222X	M.G.RESISTOR	
	R109	NRSA02J-152X	M.G.RESISTOR	
	R110	NRSA02J-152X	M.G.RESISTOR	
	R111	NRSA02J-562X	M.G.RESISTOR	
	R112	NRSA02J-122X	M.G.RESISTOR	
	R113	NRSA02J-271X	M.G.RESISTOR	
	R114	NRSA02J-391X	M.G.RESISTOR	
	R115	NRSA02J-332X	M.G.RESISTOR	

■Electrical Parts List (Head Amp & Mechanism Control P.C.B.)

⚠	Item	Parts Number	Description	Area
	R116	NRSA02J-182X	M.G.RESISTOR	
	R117	NRSA02J-332X	M.G.RESISTOR	
	R118	NRSA02J-152X	M.G.RESISTOR	
	R119	NRSA02J-203X	M.G.RESISTOR	
	R120	NRSA02J-102X	M.G.RESISTOR	
	R121	NRSA02J-122X	M.G.RESISTOR	
	R202	NRSA02J-102X	M.G.RESISTOR	
	R203	NRSA02J-183X	M.G.RESISTOR	
	R205	NRSA02J-220X	M.G.RESISTOR	
	R206	NRSA02J-392X	M.G.RESISTOR	
	R207	NRSA02J-123X	M.G.RESISTOR	
	R208	NRSA02J-222X	M.G.RESISTOR	
	R209	NRSA02J-152X	M.G.RESISTOR	
	R210	NRSA02J-152X	M.G.RESISTOR	
	R211	NRSA02J-562X	M.G.RESISTOR	
	R212	NRSA02J-122X	M.G.RESISTOR	
	R213	NRSA02J-271X	M.G.RESISTOR	
	R214	NRSA02J-391X	M.G.RESISTOR	
	R215	NRSA02J-332X	M.G.RESISTOR	
	R216	NRSA02J-182X	M.G.RESISTOR	
	R217	NRSA02J-332X	M.G.RESISTOR	
	R218	NRSA02J-152X	M.G.RESISTOR	
	R219	NRSA02J-203X	M.G.RESISTOR	
	R220	NRSA02J-102X	M.G.RESISTOR	
	R221	NRSA02J-122X	M.G.RESISTOR	
	R301	NRS181J-221X	M.G.RESISTOR	
	R302	NRS181J-101X	M.G.RESISTOR	
	R304	NRSA02J-393X	M.G.RESISTOR	
	R305	NRSA02J-103X	M.G.RESISTOR	
	R306	NRSA02J-103X	M.G.RESISTOR	
	R307	NRSA02J-103X	M.G.RESISTOR	
	R308	NRSA02J-152X	M.G.RESISTOR	
	R309	NRSA02J-152X	M.G.RESISTOR	
	R310	NRS181J-820X	M.G.RESISTOR	
	R311	NRS181J-820X	M.G.RESISTOR	
	R313	NRSA02J-3R3NY	M.G.RESISTOR	
	R314	NRSA02J-223X	M.G.RESISTOR	
	R315	NRSA02J-100X	M.G.RESISTOR	
	R316	NRSA02J-223X	M.G.RESISTOR	
	R317	NRSA02J-100X	M.G.RESISTOR	
	R318	NRSA02J-123X	M.G.RESISTOR	
	R319	NRSA02J-152X	M.G.RESISTOR	
	R321	NRSA02J-123X	M.G.RESISTOR	
	R322	NRSA02J-152X	M.G.RESISTOR	
	R327	NRSA02J-474X	M.G.RESISTOR	
	R328	NRSA02J-222X	M.G.RESISTOR	
	R329	NRSA02J-222X	M.G.RESISTOR	
	R330	NRSA02J-0R0X	M.G.RESISTOR	
	R335	NRSA02J-222X	M.G.RESISTOR	
	R336	NRSA02J-392X	M.G.RESISTOR	
	R338	NRSA02J-222X	M.G.RESISTOR	
	R339	NRSA02J-222X	M.G.RESISTOR	
	R341	NRSA02J-222X	M.G.RESISTOR	
	R343	NRSA02J-0R0X	M.G.RESISTOR	
	R345	NRSA02J-222X	M.G.RESISTOR	
	R346	NRSA02J-0R0X	M.G.RESISTOR	
	R347	NRSA02J-392X	M.G.RESISTOR	
	R348	NRSA02J-222X	M.G.RESISTOR	
	R350	NRSA02J-472X	M.G.RESISTOR	
	R351	NRSA02J-151X	M.G.RESISTOR	
	R353	NRSA02J-472X	M.G.RESISTOR	
	R354	NRSA02J-151X	M.G.RESISTOR	
	R355	NRSA02J-332X	M.G.RESISTOR	
	R356	NRSA02J-103X	M.G.RESISTOR	
	R357	NRSA02J-103X	M.G.RESISTOR	
	R358	NRSA02J-123X	M.G.RESISTOR	
	R359	NRSA02J-123X	M.G.RESISTOR	
	R360	NRSA02J-433NY	M.G.RESISTOR	
	R361	NRSA02J-183X	M.G.RESISTOR	
	R362	NRSA02J-123X	M.G.RESISTOR	
	R363	NRSA02J-183X	M.G.RESISTOR	
	R364	NRSA02J-433NY	M.G.RESISTOR	
	R365	NRSA02J-203X	M.G.RESISTOR	
	R366	NRSA02J-123X	M.G.RESISTOR	
	R367	NRSA02J-102X	M.G.RESISTOR	
	R368	NRSA02J-391X	M.G.RESISTOR	
	R369	NRSA02J-391X	M.G.RESISTOR	
	R371	NRS181J-222X	M.G.RESISTOR	
	R374	NRSA02J-912X	M.G.RESISTOR	
	R375	NRSA02J-683X	M.G.RESISTOR	
	R376	NRS181J-6R8X	M.G.RESISTOR	
	VR101	QVP0008-503Z	50K V.RESISITOR	
	VR201	QVP0008-503Z	50K V.RESISITOR	
	VR301	QVP0008-103Z	10K V.RESISITOR	
		OTHERS		
	L301	QQR0620-001	OSC COIL	
	L303	QQL01BK-100Z	INDUCTOR	
	CN301	QGF1205F1-06	CONNECTOR	
	CN302	QGF1205F1-06	CONNECTOR	
	CN303	QGB2011M1-10	CONNECTOR	
	CN304	QGB2011M1-10	CONNECTOR	
	CN305	QGF1205F1-10	CONNECTOR	
	CN306	QGF1205F1-11	CONNECTOR	
	WIRE	VWS304-10A13K	FLAT WIRE	

■Electrical Parts List(Reel Pulse P.C.B)

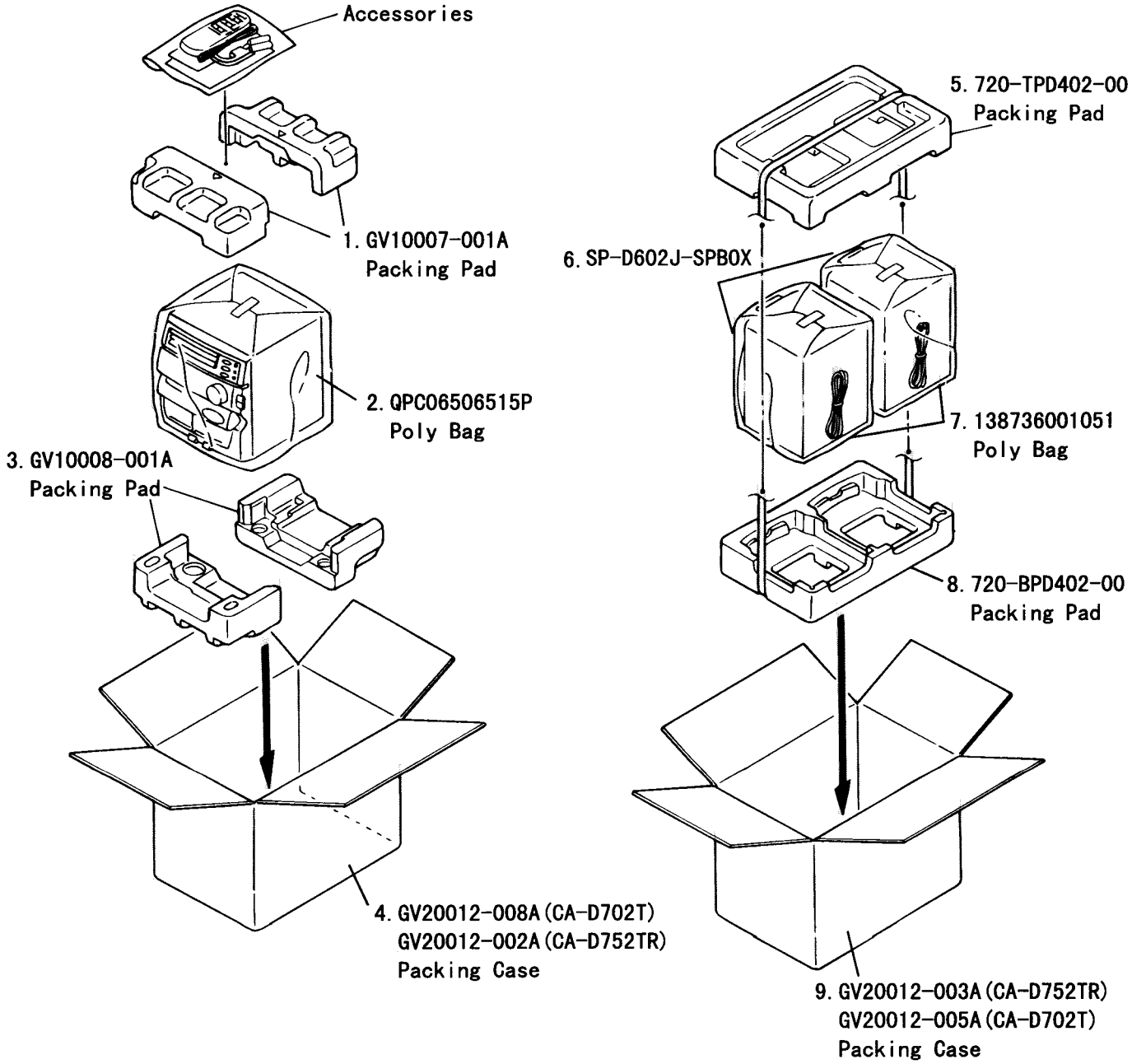
⚠	Item	Parts Number	Description	Area
		I.C.S		
	IC 1	SG-105F3-BB.C	IC(PH SENSOR)	
		DIODES		
	D 1	1SR139-100-T2	SI DIODE	
		OTHERS		
	P 1	QNZ0104-001	PIN	
	CN 1	QGB2011L1-10	PIN PLUG	
	SW 2	MXS00220MVL0	CASSETTE SWITCH	
	SW 4	MXS00220MVL0	CASSETTE SWITCH	
	SW 6	QSW0507-001	LEVER SWITCH	

■Electrical Parts List(Reel Pulse P.C.B)

⚠	Item	Parts Number	Description	Area
		I.C.S		
	IC 1	SG-105F3-BB.C	IC(PH SENSOR)	
		DIODES		
	D 1	1SR139-100-T2	SI DIODE	
		OTHERS		
	P 1	QNZ0104-001	PIN	
	CN 1	QGB2011L1-10	PIN PLUG	
	SW 1	MXS00220MVL0	CASSSETTE SWITCH	
	SW 2	MXS00220MVL0	CASSSETTE SWITCH	
	SW 4	MXS00220MVL0	CASSSETTE SWITCH	
	SW 5	MXS00220MVL0	CASSSETTE SWITCH	
	SW 6	QSW0507-001	LEVER SWITCH	

Packing Materials and Accessories Parts List

Block No. M 5 M M



■ Accessories Parts List

BLOCK NO. M6MM

⚠	REF.	PARTS NO.	PARTS NAME	REMARKS	QTY	SUFFIX	CLR
	A 1	GVT0004-006A	INST.BOOK	CA-D752TR	1	E	
		GVT0004-009A	INST.BOOK	CA-D752TR	1	EE	
		GVT0004-003A	INST.BOOK	CA-D702T	1	U,UB,US	
		GVT0004-004A	INST.BOOK	CA-D702T	1	UP	
		GVT0004-003A	INST.BOOK	CA-D702T	1	UT,UX	
		GVT0004-007A	INST.BOOK	CA-D752TR	1	EN	
		GVT0004-005A	INST.BOOK	CA-D702T	1	A	
		GVT0004-008A	INST.BOOK	CA-D752TR	1	B	
	A 2	BT-56001-1	WARRANTY CARD	CA-D702T	1	A	
		BT-56004-5	W.CARD	CA-D702T	1	UP	
		BT-54008-1	WARRANTY CARD	CA-D752TR	1		
	A 4	ENZ2202-001	AC PLUG ADAPTER	CA-D702T	1	U,US	
	A 5	VMZ0139-001	CONTHI PLUG	CA-D702T	1	UT,UX	
	A 6	QAL0014-001	AM LOOP ANT		1		
	A 7	EWP201-011	B. IN ANT		1		
	A 8	RM-SED702TXUKP	REMOCON	CA-D702T	1		
		RM-SED752TRU	W.LESS REMOCON	CA-D752TR	1		
	A 10	R6SPTT/2STS	BATTERY		2		
	A 11	E309758-002	POLY BAG		1		

CA-D752T
CA-D752TR

JVC

VICTOR COMPANY OF JAPAN, LIMITED
AUDIO DIVISION,10-1,1Chome,Ohwatari-machi,Maebashi-city,371-8543,Japan

(No.20700)

Printed in Japan
9806 (O)